

"... AND SO MADE TOWN AND COUNTRY ONE"

The Streetcar and the Building of Portland, Oregon, 1872-1920

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## The Abstract

This thesis is essentially a study of the streetcar and interurban railways of Portland, Oregon, prior to 1920. As such, it attempts to assess the impact of streetcar and interurban transportation on the physical and social structures of a growing western metropolis, and to relate the features of urban development during the pre-automobile years to the features of the present automobile city. The first chapter deals briefly with the early history of Portland to establish some conception of the city's reasons for being, of why and where it grew in the years before the streetcar came. The second chapter details the relationships between the streetcar technology and three aspects of urban life: the concentration of retail business into one large and numerous small trade areas, the rapid and diffuse spreading of residential districts around the city, and the increase in leisure time. The third chapter is a detailed account of the principal extensions and changes in the actual network of streetcar and interurban lines, divided into three sections. The first details lines built before 1907, the second developments between 1907 and 1920, and the third the growth of suburban and interurban railways. The summary statement is couched in terms of the kind of urban life the streetcar represented. The streetcar served well to make "town and country one", to

scatter people over a landscape that they might be far from the contaminations of the city in physical terms, and yet be close to its advantages in terms of time and expense.

## I: Portland: Statement, Prospectus, History

### A Statement

It is impossible to assert with conviction that the city of Portland, Oregon, grew to its present size and importance in a unique fashion or in a unique manner. It is equally impossible to show that it followed any predictable or expected pattern of growth, that the growth was inevitable or that its development was in any outstanding sense typical. As a western trade center, Portland's development bears little resemblance to the history of such eastern centers of trade as Boston, New York, Philadelphia, or Baltimore; it cannot be readily compared with the evolution of trans-Allegheny commercial and industrial centers such as Pittsburgh, St. Louis, Cincinnati, or Louisville; it bears no resemblance to Chicago, nor to New Orleans; not to Denver or Kansas City. Even comparisons with West Coast centers such as San Francisco, Seattle, San Diego, and Los Angeles are highly misleading, although they are helpful. And yet there is no aura of uniqueness about Portland.

This thesis does not propose to explain Portland, its reasons for being or growing, its forms and images and style of life except in the limited context of the influence of street and interurban railways upon these

things in that limited period when street and inter-urban railways had the power to manipulate, consciously and unconsciously, the shape and growth of cities.

It is, in the first place, necessary to review quickly the principal events in the history of Portland: its beginnings, what caused it to prosper in a sedate fashion for decades as a commercial center for the Northwest, the nature of its population and business, its geographic features, and the manmade features which were imposed on the land. In the second place, a relatively extensive account of the development of mass transportation in Portland is needed: a history of its horsecars, cable cars, steam interurbans, electric streetcars, and inter-urban electric lines.

From the 1880's through the First World War, public transit was a fact of life in Portland, much as it was in almost every other American metropolitan area (or hopefully-metropolitan area). There is no denying that cheap, rapid, convenient and public transportation played a primary rôle in the ability of cities to grow to unprecedented size while still retaining a semblance of urban unity. That Portland came to experience its period of greatest growth when the electric cars were holding sway in the domain of local urban transit had definite implications for the manner in which it grew.

Sam Warner, Jr., has described the growth of Boston in the late nineteenth century as a matter of extending the boundaries of an already concentrated and established urban center into a countryside long dotted with rural villages and country retreats. Street railways played an important rôle in gathering these villages and retreats into the social and economic sphere of Boston, as well as populating the intervening countryside.<sup>1</sup> Portland had not established itself as the urban concentration Boston was in the 1880's when the street railway appeared to begin spreading the populace over the landscape. There were few villages to be absorbed into the central city; there were even fewer country estates; and there was no intervening farmland to be spread over with housing. There was only a wilderness of forest, much of which was and could only be opened to suburban settlement by the "magical electric fertilization" of the streetcar.

Finally, Portland's relatively stable rate of growth --it never had to contend with the likes of San Francisco's inundation of miners, speculators, and merchants of the 1850's or the disastrous earthquake of 1906, with Los Angeles' land-and-climate booms of the 1880's and 1920's, with Seattle's wave of Yukon throngs at the turn of the century--has preserved many of the features of the streetcar city well into the automobile age. While in-



creased mobility has enabled land use patterns to shift in many areas, the changes have not erased all marks of the "original" Portland. Such wholesale land reworkings as the South Auditorium Renewal Project, the Memorial Coliseum, the Stadium Freeway, have, indeed, demolished much of the old city, but they are recent ravages. For at least thirty years after the 1920's, when the streetcar ceased to be the predominant and indispensable means of public transportation in Portland, the city existed within the bounds of a streetcar city. Only within the past fifteen years have the structures visibly begun to fall, and even today the area bears significant traces of having matured as a streetcar city.

It is hoped then that this paper will be able to describe some of the effects of streetcar living in Portland, something of the institutions it supported and of the habits it fostered. Of course, it cannot be contended that the streetcar is responsible for the configuration of the city; it was only one of many forces which were at work in shaping living conditions between 1880 and 1920. Existing in a world without telephones, elevators, or electric lights, in a culture which rejected the appeal of urban living for the country, or which rejected the ideal of domestic rural virtues, it might have become only an amusement device. But it did arrive with the telephone, the elevator, and electric lighting. It en-

tered a culture which prized the variety and excitement of city life and embraced its opportunities for industrial employment, a culture which almost paradoxically still valued the privacy and independence of rural life.<sup>2</sup> The streetcar, obviously an agent of urbanism and industrialism, was just as paradoxically an agent for making rural and semi-rural suburban living available to thousands who could never (and would never wish to) actually operate a farm or live an isolated farm life.

#### A Prospectus

Like many another city Portland ascribes much of the credit for its existence to the fortunes of geography. It is, first, an ocean port. Second, it is a freshwater port over a hundred miles inland from the sea. Third, it is located at the convergence of two water-level routes from productive interior regions. The combination was attractive enough to almost insure the eventual development of some trading point along the Columbia system serving the new American Northwest. Why Portland rather than St. Helens, Linnton, St. Johns, Milwaukie, or Oregon City became the principal port of the Columbia Basin is now a matter of conjecture. We can believe it was a matter of river conditions combined with minor political intrigue, the will of God, and the works of man; or we can stand with Stewart Holbrook and say it was a stern pronouncement

by Captain Couch and the construction of a rutted plank road up Tanner Creek which made the metropolis.<sup>3</sup> Whatever the reasons, she is there today.

Geography may have made Portland a commercial center; but our concern with geography will concentrate on the natural physical features of the site of nineteenth-century Portland before considering the implications of regional geography. Early Portland was laid out on a tract of relatively level land on the west bank of the Willamette, about ten miles above its entrance into the Columbia. Just north of the site of the first Portland plat, the northward-flowing Willamette angles to the northwest; along the west bank of this bend once were several marshy lakes, while south of it the land rises gently back from the river for about a mile. There the West Hills thrust sharply upward from the lowlands. To the extreme north the land slopes down again to the river level, and the West Hills close down to the river's edge. South of the plat the hills again close in to the river, spreading out into more rounded hills and leaving only a narrow benchland along the river bank. The land then easily available to settlement in Portland constituted an area of about three square miles of gently sloping forest. Within the confines of the river, the marshes to the north, and the West Hills rose virtually all of Portland before 1880.

The east bank of the river might have seemed a more convenient place to build a city. For the most part the ground is level, rising back gradually from the river, and virtually without such major obstacles as the west side's thousand-foot hills of precipitous slope. Directly opposite west side Portland, however, three ravines emptied waters into the Willamette and had piled up an alluvial deposit which hampered easy access to the shore by ocean vessels. And to the north of the depression where the gulches reach the Willamette, the banks rise high along the river to a point well past St. Johns; to the south also they appear in gravelly bluffs overlooking Ross Island and extending upriver beyond Sellwood. The east side lacked a suitable landing point for shipping south of St. Johns, but the alluvial flatlands of East Portland were soon found suitable to gardening and residences. Although the gulches which had piled up the distressing gravel fan at East Portland were no help to shippers they were to the railroads, which found two of them useful in carrying their roadbeds down to water level from the eastern plateau. Tracks which eventually led to San Francisco extended south from East Portland through Stephen's Gulch in 1869; the Villard transcontinental wended its way through Sullivan's Gulch in 1883, and the major shops and yards of both lines were located on the east side.<sup>4</sup>

With water-borne commerce solidly committed to west side moorages, it was certain that the west side would develop along commercial lines: the docks were there, so the warehouses were there. With warehouses were wholesale houses, financial agents, and retail stores. And of course there were houses, hotels, boarding houses, and lodgings for those engaged in shipping, warehousing, selling, for laborers, clerks, and professionals. The usable land of the west side was sufficient to accomodate all this activity until the 1880's. However, to provide additional waterfront sites for shipping and warehousing and less expensive land nearby for wholesalers, the marshes and lakes north of the original plat were gradually filled in after 1870. The east side, lacking the natural features to enable it to participate in a commercial system based on transportation by water, languished for many years after its founding in the 1860's. By the time the trans-continental railroad reached the east bank in 1883, and the road to San Francisco was opened in 1887, the west side was firmly entrenched as the heart of business activity and the center of population. The advantages of the east side as the location of residences and business were not to become apparent until the 1880's when the population began to crowd the small area of the west side, and bridges and streetcars could link the two banks into a continuous city.<sup>5</sup>

### A History

In the Oregon Country of the 1840's there was as yet only one established metropolis: Oregon City, the end of the Oregon Trail. Seemingly ideally situated on the banks of the Willamette where the river plunges over a forty-foot cataract (which provided power for flour and lumber mills), Oregon City looked forward to becoming the trade center for the Willamette Valley. Above the falls, the river was tame and wide, providing an ideal highway for bringing grain down from the fertile fields of French Prairie. The grain-growing fields of the Tualatin Plains could also be reached from Oregon City by muddy wagon road or, if the water was high, the snags were avoided, and the shoals at the mouth could be overcome, down the Tualatin River. And ocean-going sailing vessels could come up to landings beneath the falls, again assuming sufficient water and the good fortune to escape the clutches of a gravel bar at the mouth of the Clackamas and the treacherous shallows about Ross Island. But the location was obviously not so ideal as early residents had hoped. So, when the legendary Captain John H. Couch, who piloted ships from the East Coast to Oregon several times, declared that he could not and would not bring his ships "a rod further" than a point opposite the tiny settlement of Portland, he may have fixed Portland's destiny for the next century.<sup>6</sup>

Portland's founding, if not much else of its history, has been told often. Asa Lawrence Lovejoy, late of Massa-

chusetts, and Francis Pettygrove, late of the State of Maine, platted a few streets in a clearing beside the river in 1845. Perhaps being a bit homesick, Mr. Lovejoy wished to name the tract Boston; Mr. Pettygrove, in a similar state of mind, suggested Portland. A flip of a coin resolved the conflict. By 1850 the village had a population of nearly 800, industry in the form of a steam sawmill, culture in the guise of the Weekly Oregonian, and commerce represented by an occasional sailing vessel and a log-cabin hotel.<sup>7</sup> A year previously the citizenry had looked to the capture of some further commerce, the trade of the Tualatin Plains. If a water or water-level route were the solution to connecting the Plains with trade along the Willamette, Oregon City should have benefited. But in a direct line Portland was much closer to these lands; they lay just over the hills which were directly behind the town. So the citizens of Portland undertook to improve and plank a perilous road through the canyon of Tanner Creek and over the crest to the Plains, completing the project in 1851. This effort netted Portland the trade of that region and possibly, after Captain Couch's declaration, completed the demoralization of Oregon City, though its utter usurpation was several years in the future.<sup>8</sup>

The growth of the city after 1850 was statistically explosive, but Portland was by no means a metropolis at the end of the decade. It had acquired a brick building

by 1853 through the farsightedness of William S. Ladd, as well as many two-storied structures to occasion civic pride. However, many of the double-decked buildings were not ostentatious business structures but riverfront warehouses which needed a lower floor for normal water levels and an upper floor for use during the river's spring and summer flood stages. A daily newspaper appeared in 1859; when this shortly failed, another arose; when it too failed the enduring Oregonian began daily publication.<sup>9</sup>

The census of 1860 showed the town's population to have increased to nearly 3,000. During the 1850's those Portlanders--apparently none too numerous--who were spared the ravages of California gold fever had built Portland into a prosperous shipping point. Portland found itself milling and loading lumber for shipment to San Francisco, and collecting and dispatching wheat and fruit from the Willamette Valley to the California mines. In 1860 the Oregon Steam Navigation Company was formed; the OSN was shortly to monopolize transportation between Portland and the Columbia Basin. The discovery of gold in eastern Oregon, Idaho, and Montana in the early 1860's proved a golden moment for the OSN, for Portland capitalists, and for the fortunes of Portland as a commercial center.<sup>10</sup>

The census of 1870 showed a city nearly three times larger than the Portland of a decade earlier: 8,293 residents. Portland's commercial and cultural importance was



probably much greater than the small count indicates, for in 1870 Portland was the largest city north of Sacramento and west of Denver. Already many of the people whose names were to become inextricably involved with Portland's commerce and finance had begun to acquire their fortunes: Ainsworth, Thompson, Reed, Kamm of the Oregon Steam Navigation; Ladd, Corbett, and Failing, DeLashmutt, Dekum and Lownsdale. The city grew fairly rapidly throughout the seventies, although activity was still concentrated in a narrow strip along the river north from about Jefferson Street, and west to 5th and 6th Streets. A few hundred people lived across the river in East Portland, which was incorporated as a separate city in 1871, and settlements existed at St. Johns and at Fulton, just south of Portland. In 1872, a small mule-drawn street railway appeared on First Street: Portland was now a city.<sup>11</sup>

By 1880, the city had doubled in size to nearly 18,000 persons, and it entered into a decade of spectacular yet substantial growth. The residences of the wealthy began to move west into Couch's Addition and along the base of the West Hills; the business district too was pushed westward as warehousing and shipping took up increasing space back from the river and extended to the north over the recently filled-in marshlands. The transcontinental railroad arrived with great ceremony in 1883, and yards, shops and grain elevators sprang up across the

river in the railroad town of Albina. In the eighties too the street railway began to be something less of a novelty and more of a necessity. By the end of the decade horse-car lines had spread over Portland and into East Portland and Albina. At the beginning of the nineties, the still-new horsecar lines were obsolete, and electric cars were taking over their runs.<sup>12</sup> The streetcar city began to take shape.

Between 1880 and 1910, Portland's population approximately doubled every decade: from 17,577 in 1880 to 46,385 in 1890, then to 90,462, reaching 207,214 in 1910. In the next decade it showed a further substantial increase to 258,288. The original west side location of course did not absorb this population; the streetcar helped scatter it to north, east, and south. As residential areas spread over the east side, to the edge of the West Hills, and south toward Fulton, the municipal boundaries tried to gather them all into the parental fold. In 1891, Portland consisted of about seven square miles on the west side, but in that year it annexed East Portland and Albina and emerged as a city of some 25 square miles in area. When Sellwood was added in 1893, fourteen square miles came with it, some of it between East Portland and Sellwood, the remainder on the north east side including part of what later was St. Johns. Part of this northern wilderness was detached five years later, only to be taken in

again in 1915 with St. Johns itself. In 1915, too, Linnton was annexed to the city, which added some nine square miles of west side timberlands to the total.<sup>13</sup> By 1920, the city boundaries were not vastly different from those today and the city itself had established patterns of traffic, residential development, and business activities which still dominate the city landscape.

## II: Life in the Streetcar City

### Streetcars and Retail Business

As a passenger carrier which came to dominate the urban transportation scheme, the streetcar naturally had an effect upon business patterns. Portland's first line extended down the principal retail thoroughfare of the town, First Street, which at either end penetrated areas of a heavier residential concentration. At that time, of course, a greater proportion of people lived in the business district than do so now: storekeepers lived over or behind their establishments, often renting extra space on second or third floors for living quarters. Many relatively permanent residents lived in downtown hotels and boarding houses in order to be close to their place of work in downtown shops, warehouses, mills, and on the docks. Still, small individual houses were common within a block or two of the business streets. The streetcar eventually was to help disperse this downtown residential population to outlying areas where the majority of families lived in individual houses on small lots. During the first decade of horsecar service in Portland, this tendency was probably not particularly significant--at least the influence of car service on such trends is not especially evident. The early car line served established

patterns of city life, but it could not noticeably promote the trend toward urban population dispersal and business concentration evident at the time in Boston, for example.

The car line developments of the eighties were somewhat more speculative and also more prophetic of future trends. They pushed to the west and northwest, toward an area only beginning to develop as a significant residential area, and linked it with the commercial and industrial downtown area. Where the first car line had been surviving--tenuously surviving at that--on the traffic of shoppers who were disinclined to walk the few necessary blocks, of workers who lived in the south part of town though they worked in the northern section, and of wet-weather travelers, the new lines were prepared to make a new life style available to Portland residents. One could now purchase a small lot in relative wilderness and yet be assured of easy conveyance to town. In this case, the cars opened new territory to easy settlement and they could count on a steadier traffic. The distances were sufficient that few people, workers or shoppers, would walk even in good weather: they had to take the cars. The first horsecar line in the center of Portland was mostly a pretentious convenience, while the early lines into Couch's Addition were nearly a necessity if the area was to develop as part of Portland.

On the east side, in East Portland and Albina, the car lines of the eighties led to the ferry landings on the Willamette; after 1887, they crossed it on the new Morrison Street Bridge, and soon after on the Madison Street Bridge as well. Albina was the site of the shops of the Union Pacific Railroad, and both East Portland and Albina were the site of limited river activity; but although these offered some local industrial employment, both cities were tributary to Portland proper in commercial and cultural affairs. They were principally residential communities which sent most of their working populace to Portland each day, and the streetcars, ferries, and bridges made the trek possible.

At the beginning of the 1890's the dominance of Portland as the center of regional trade and population was complete; the only other centers of any importance in a forty-mile radius were the historic settlements of Oregon City and Vancouver, and they too were linked to the interests of Portland. Vancouver for years was accessible to Portland only by local sternwheel steamers which took from two to three hours to negotiate the passage down the Willamette and back up the Columbia in a lengthy dogleg.<sup>1</sup> By 1888 it was connected to Portland by a land route from the Morrison Bridge and the Stark Street ferry to the Vancouver-Hayden Island ferry. This arrange-

ment cut travel time by more than half and opened up a vast territory to suburban development. At the same time, it made commuting between Vancouver and Portland feasible if still a bit time-consuming and complicated.

Oregon City, too, had long been bound to Portland's fortunes by river travel, the trip taking about an hour.<sup>2</sup> In the early part of 1893 one of America's first electric interurban railways reached Oregon City from Portland, and the reduced travel time and competitive cost damaged river traffic and once again stimulated suburban growth. "All the way from Brooklyn were farms and new clearings, and new townsites and signs advertising suburban tracts for \$5 down and \$5 a month."<sup>3</sup>

Along both the Vancouver and Oregon City routes, semi-rural residential developments were the predominant activity. Although the Vancouver line passed through the city of Albina and witnessed the growth of some retail trade in the new Piedmont and Woodlawn districts, the growth of trade and commerce in these areas was insignificant compared with the trade which residents along the line must have contributed to downtown Portland: the result of pursuing the ideal of country living with access to the opportunities of the city.

The Oregon City line passed through two older settlements, both of which had at one time hoped to rival

Portland as centers of river traffic and thus of commerce in the Willamette Valley and Columbia Basin: the pioneer settlement of Milwaukie and the much newer town of Sellwood, which came into being in the 1880's. Milwaukie, expectedly, became a suburban settlement, though not so markedly as did Sellwood and the area between Sellwood and Portland, for Milwaukie retained the local trade it had built up over the past forty years as a river landing between Portland and Oregon City. Sellwood, however, having failed in its aspirations to coax industry to its shores and ocean-going or river craft to its landings, settled down to become a real estate subdivision with easy and convenient access to Portland.<sup>4</sup> It was incorporated as a separate city in 1887, and in February of 1893, the same month that service began on the new Oregon City interurban, Sellwood was annexed to Portland. A core of retail activity has remained to this day, but such institutions as the Bank of Sellwood are gone and the potential for an extensive business development was lost with the gain of cheap passage to the larger and more exciting offerings of the central city.

Similar patterns are observable on virtually all of the early lines which extended several miles from the city. Such east side communities as Lents, Montavilla, Sunnyside, Brooklyn, and St. Johns were founded before



the arrival of the cars, and prospered to a limited extent as retail trade centers for nearby farmers and suburbanites; but after the arrival of streetcar service, their importance declined. Montavilla, located at the eastern end of the Montavilla car line, is still an area of retail business, though it was and remains limited in extent: it supplied groceries, clothing, and other day-to-day necessities, but the nearby residents worked in Portland, transacted most of their commercial business there, and looked to it for supplies, cultural events, and employment. Sunnyside and Brooklyn exhibited a similar cycle, and St. Johns and Lents are prominent examples of it.

St. Johns, whose promoters, like those of Sellwood, hoped to make it a river port rivaling Portland, grew up somewhat more independently as a small city. It was incorporated in 1903 and launched itself upon an aggressive promotional effort as an industrial, commercial, and river center of soon-to-be-undoubted importance.<sup>5</sup> Its prospects for becoming such a center had once been quite favorable, but by 1903 Portland had both a commanding and insuperable lead and the wealth and momentum to maintain itself in the forefront. And one factor which might have helped St. Johns in its efforts to develop independently was gone by that time. From 1890 until about 1900, travel

to St. Johns from Portland was by electric car to Albina, or, later, somewhat further to the intersection of Interstate and Killingsworth Streets, and thence by steam motor carrier to Portsmouth and St. Johns.<sup>6</sup> The necessity for transfer from electric to steam cars, the infrequent scheduling of the steam line, and the graduated fare structure made travel between Portland and St. Johns exceedingly awkward, relatively expensive, and very time-consuming. The inconvenience of the railway link helped perpetrate the isolation of the town from Portland and permitted it a more extensive retail development than was noticeable in any other suburb except East Portland and Albina (these, by 1891, were officially part of Portland; their retail activities now constituted an east side extension of the west side activities). However, by the time St. Johns decided to incorporate as a separate city, it was the terminus of a through electric service to downtown Portland, replete with the standard city fare of 5¢ for any distance, full transfer privileges, and a car every twenty minutes. It never began to fulfill its hopes as an industrial and commercial center independent of Portland. St. Johns continued to develop as a suburban community of small houses inhabited by Portland employees seeking the virtues of rural life with access to city vices, pleasures, and employment. In 1915 the city was annexed to Portland, its absorption completed.

The community of Lents went through the same cycle. It was located at the far end of a steam motor line built in 1892 which connected with the steam motor line on Hawthorne Street; this in turn met the electric cars which crossed the Madison Street Bridge. Again, the complications of slow, infrequent service, noisy and smoking steam locomotives, and the lack of through service to downtown prevented extensive developments along the line, and Lents retained a small position as a supply point. Residential construction along the line was also less pronounced than it was along such through electric roads as the Montavilla line; the route was basically suburban, and verged on the rural.<sup>7</sup> The real estate activity which the road's promoters hoped for did not materialize for a decade: something of a disappointment as the chief reason for the construction of the line was to sell lots in a subdivision called Chicago. However, with the electrification of the route in 1901, astounding developments took place. "In 1901 [the territory bordering the Mt. Scott-Lents line] was a region of second-growth timber and small clearings. In 1904 the clearings were spreading, and flaunting banners and signs reading: 'Ten cents a day pays for your homes', and '\$5 and \$5 a month'. ...The line was no longer suburban but local, with 20 minute headways."<sup>8</sup> Part of the increase was the

consequence of a general regional population growth following the Exposition of 1905, but what made this particular region so attractive to newcomers was faster, more comfortable transportation and a revised fare structure which established the 5¢ fare to the city line and a rate of 2¢ per mile beyond; commutation rates averaged under 1½¢ per mile.<sup>9</sup> In 1912 Lents was annexed to the growing metropolis, and the 5¢ fare came with it.

Although the streetcar contributed to the demise of many a small but promising trade center by making accessible the already manifold opportunities of a large city, the cars also seem to have explicitly influenced the establishment and location of other such concentrations. The free transfer, coupled with an increasing network of trunk lines and short connecting lines, was a principal agent of this occurrence. The free transfer also had a definite propensity toward bolstering the dominance of the downtown trade center, for downtown was the principal transfer point of the radial streetcar system. Still, numerous other transfer points existed throughout the city, and retail activity grew up about them also. A survey conducted by the Pacific Telephone and Telegraph Company in 1916, which provides a set of maps showing the location of retail businesses, residences, institutions, and so on, clearly illustrates the distribution of retail

trade establishments.<sup>10</sup> Downtown Portland is the overwhelming center of such activity; the next largest concentrations are situated in East Portland along what is now Grand Avenue, particularly clustered around intersections leading to the bridges (where east side car lines crossed the Bridge Transfer car line along Grand Avenue), and in Albina where the Williams and Mississippi lines converged and where connections were made with the Russell-Shaver line. Other concentrations were in St. Johns, Montavilla, Lents, Sunnyside, and Sellwood. All of these were the terminals of local car lines with the exception of Sunnyside, which, although it was located along the Mt. Tabor car line, was still a place of sufficient importance to be the terminal of frequent tripper cars to downtown. Small trade centers were located at such intersections as E. 26th and Clinton Streets, where the Richmond and Woodstock lines separated; at Milwaukie and Bybee Streets where the Sellwood cars connected with East Moreland shuttle cars; at Milwaukie and Powell Valley Road, where the Brooklyn and Sellwood cars intersected; at 50th and Hawthorne Streets, the division point for Hawthorne and Mt. Scott cars; at 42nd and Sandy Road where the Rose City Park line let off passengers for the Beaumont shuttle cars; along Union Avenue at Alberta, Killingsworth, and Dekum Streets, points of interchange or divergence for the Alberta, Williams and Woodlawn cars to or from the

Vancouver interurban or Union Avenue tripper cars; and at 23rd and West Burnside, where 23rd Street and Council Crest cars went separate ways and Kings Heights and Arlington Heights cars deposited passengers for transfer to city-bound cars.

On the other hand, there was a notable absence of retail development along some streets which are now commercial arteries, but which in 1916 were either without car service or which had had such service for only a short while; there were cases as well of the existence of considerable retail trade along streets with car lines, streets which are now of little commercial importance.

The Powell Valley Road, although it had for decades been the principal road from Portland to Gresham and the eastern part of the county, was virtually devoid of business enterprises east of 26th Street, where the Woodstock car line crossed it; the intersection of 21st and Powell, the heart of the community of Brooklyn, was the location of numerous businesses. Until the automobile, Powell was a through road useful for persons driving wagons from outlying farms to the city; but neither residential nor commercial development was practical without adequate transportation, and horse and wagon traffic could not provide that. Even after the automobile brought the area close to downtown, development was long in coming and evidenced less intensive and more mixed land use, char-

acteristic of growth in an even more mobile society.

Sandy Road, like Powell an arterial to the east, did not develop either commercially or residentially until after a real estate developer built a car line and began subdividing the land in 1907. Foster Road, on the other hand, served by the Mt. Scott car line out to 103rd Street, was sporadically lined with shops by 1916.

A different case is evident along Alberta Street in northeast Portland, which acquired a car line in 1903 and was an area of rapid residential growth for the next decade. It was lined with shops and stores by 1916; today it is a minor arterial street, and though many of the business buildings still line to route, a large proportion are empty or of marginal use. Shopping activity of a local nature has shifted to Union Avenue.

The more or less radial nature of Portland's car lines, with all major routes funneling into the downtown are and most shuttle lines connecting directly with downtown lines, established the city center as the great transfer point for persons traveling from one part of town to another. Very few lines passed through the city center; they terminated there. Some lines from the east side, such as the Sunnyside, passed through to terminals in southwest Portland, the Sunnyside in the vicinity of Goose Hollow; the North and South Portland line at various times extended from the vicinity of Willamette Heights to South Port-

land, Fulton, and beyond. But virtually all other lines stopped downtown, and to travel by streetcar from St. Johns to Sellwood meant a transfer there. As the only alternative to the downtown transfer, east side lines which crossed the river all connected with the East Side or Bridge Transfer line which extended from the Broadway to the Hawthorne bridge; but to use this route as a link in traveling between St. Johns and Sellwood, for example, required two transfers. The inconvenience of waiting in the rain twice rather than once, of transferring in a comparatively desolate place where the solace of corner candy and cigar stores was not so easily to be had, channeled crosstown passengers through downtown transfer points. Quicker connections were also easier downtown, particularly in off-peak hours when headways could be infrequent enough that a Bridge Transfer car might arrive at a connecting point too late to enable it to make the next connection which would have been possible with a single downtown transfer. One result of such an arrangement was a proliferation of downtown shops which could cater to streetcar passengers waiting between cars: cigar stores, candy stores, magazine and news stands, and drug stores.<sup>11</sup>



### Streetcars and Residential Development

The preceeding section incidentally indicated some of the effects which streetcar routes had upon the growth of residential areas. By greatly reducing travel time and expense, streetcars made enormous areas of land tributary to Portland. Following the residential trends of the 1890's and after, this land was principally used for the construction of single-family dwellings on fairly large lots, in a setting that promised such rural treasures as a small garden, trees and grass, and perhaps a few chickens, as well as the opportunity to enjoy such city benefits as streets, water, sewers, lights, a large and varied shopping district, concerts and plays, downtown churches, and industrial or commercial employment. Exploiting the desire of many to live on the outskirts of the city while still being part of it, and of the abilities of the street railway to make this style of life possible, several early lines were constructed with the hope of using the streetcar to boost land sales, if necessary operating the car line at a loss for some time if land sales (by the same party) would more than cover such losses.

Such was the impetus behind the construction of the Portland Heights cable car road, an expensive undertaking which eventually cost some \$800,000.<sup>12</sup> But by making the Heights accessible, previously unsalable land could be

marketed as view lots.<sup>13</sup> The cable car company periodically went into bankruptcy, but it did continue operating; by 1904 the hills were sufficiently populated to justify the construction of an electric line replacing the remaining portion of the cable road on a non-speculative basis. The Vancouver line, as previously mentioned, was constructed to connect the Stark Street ferry with the company-owned Vancouver-Hayden Island ferry, though it was expected that the line would both pay for itself and soon stimulate residential construction along its tracks to provide local traffic as well. The Mt. Scott line to Lents was built for the purpose of opening up an associated real estate subdivision called Chicago. It was a rather unsuccessful endeavor until the road was electrified and fares were reduced in 1901, but enough people did settle there in the first decade to keep the line operating.

After the turn of the century, the connection between land values and easy transportation was well enough established that numerous lines were constructed by or for real estate subdividers. Those which were built by realtors and contractors were linked to the city system by arrangements which provided subsidy payments to the Portland Railway, Light and Power Company, the operators of the city network after 1907. Subsidy took the forms of a guaranteed income from lines which penetrated undeveloped areas,

the payment of construction costs by the developer, or the turning over of operable lines to the company for a nominal sum. In at least one case a developer operated a free car line, connecting with the city lines, until he could persuade the PRL&P to take it over. The developer felt that his charging a fare, making two fares necessary to reach downtown, would make the properties significantly less desirable.<sup>14</sup>

With the exception of the early speculative lines already mentioned, streetcar construction prior to about 1900 was still usually done when sufficient population already existed to support such a road, or the introduction of a road seemed to promise increased settlement rapidly enough that small early losses could be tolerated. After the turn of the century the streetcar companies constructed very few lines without additional incentives from land developers. The majority of later lines were essentially losing propositions from a revenue standpoint. Only one, the Rose City Park line, extended into a development intended for middle-class homeowners, and the Rose City Park line was a marked success for both the realtor and the traction company. Many of the other post-1900 lines--the Beaumont, East Moreland, Westover Terrace, Arlington Heights, Kings Heights, Murraymead, and the Alameda extension of the Broadway--served areas designed for rela-

tively expensive residences.<sup>16</sup> Unfortunately for the streetcar company residents of these areas bought automobiles as soon as they could afford them, and they could afford them before the less-wealthy residents of Rose City Park, St. Johns, Sunnyside, and Sellwood could consider them. Coupled with the lower population density of new upper-class subdivisions, the use of the automobile helped cause the early disappearance of streetcars in areas where they had most lately been built.<sup>17</sup>

#### Streetcars, Carrousels, Cemeteries, Chautauquas

In addition to providing the inexpensive mobility required for the development of the central city surrounded by residential suburbs, the streetcars and interurbans of Portland fostered the growth of such once-national institutions as amusement parks, Sunday picnics and excursions, and the Chautauqua, and made cemeteries the excuse for weekend outings. Although traces of these institutions remain in such customs as Sunday drives in the country, today mobility has so increased that such calculated outings are no longer necessary. They were in the streetcar era: the streetcar itself was an agent of increased mobility, but its very tracks still implied and demanded a rather specific destination.

But in the days when the electric cars were the principal form of urban transportation, the streetcar and interurban companies discovered that there was great profit potential in boosting weekend travel--when few went to work and many stores were closed--through the promotion of amusement parks. In Portland, Jantzen Beach, an amusement park on Hayden Island reached easily only by trolley, became a great revenue producer for the company.<sup>18</sup> A similarly successful venture was the construction of a park at Canemah for picnics and baseball in 1904. Canemah Park was located at the end of the Oregon City line on the brink of the Willamette falls; one of the excursion's features was the opportunity to go one way on the electric cars and to return via a leisurely river steamboat for the combined round-trip fare of just 25¢.<sup>19</sup> Perhaps in an effort to avoid sharing any further revenues with the steamboats, in 1905 the trolley company opened a monster free amusement park with a splendid merry-go-round, a natatorium, a roller rink, picnic grounds, and a vast array of other amusements, on a swampy peninsula along the Willamette. This was (and is) Oaks Park, Portland's largest and finest concentration of diversions. On fine summer days as many as 30,000 persons took the special cars to the Oaks, for it was the only way to get there; Oaks cars left downtown every five minutes via the high-speed river-

bank line, and 5¢ in carfare was all it took.<sup>20</sup> The traction company also had an amusement park atop Council Crest after 1908, with a giant Ferris wheel providing a magnificent view of the city. After construction of the Cazadero interurban line in 1903, trainloads of excursionists were carried to Estacada and Dodge Park on the upper reaches of the Clackamas River for picnics and fishing, bringing in needed revenues from a line originally built to haul materials to a company hydroelectric dam.<sup>21</sup>

Another type of weekend excursion which the electric lines encouraged was a trip to the cemetery; trolley funerals, too, became a source of revenue. "In those days fortunate was the electric railway that had a good, thriving cemetery somewhere on its line, preferably far out toward the end, because business was sure and steady."<sup>22</sup>

The Portland system had several such opportunities. The Fulton line, opened in 1890, extended from the city center to Riverview Cemetery at the southern edge of the city. As Riverview was Portland's largest cemetery and principal crematorium, there was a good traffic both in mourners and, yes, in sightseers, for the location was widely known and publicized for its landscape artistry and scenic setting. The railway added two funeral cars to its equipment roster shortly after it opened, cars especially designed to convey the body of the deceased and the funeral contingent quietly and comfortably from downtown to the cemetery.<sup>23</sup> When a

crematorium was built on the riverbluff near Sellwood, the railway added a short spur to the establishment and placed another funeral car on that service.<sup>24</sup> One other principal cemetery served by the cars was Mt. Calvary, located just west of the crest of the West Hills on Barnes Road. Although several early car line promoters attempted to serve the cemetery--one did for several months in fateful 1893 before bankruptcy struck it--the streetcars did not reach it until 1911. At that time a narrow gage track was built from the end of the Kings Heights line to the cemetery by the United Railways company, an otherwise standard gage interurban railway whose main track went nowhere near the cemetery. However, service to Mt. Calvary by United was required by its Portland franchise; at the time its franchise for city street operations was issued, United's projected route passed within hailing distance of the cemetery, and although the route changed, the franchise clause didn't.<sup>25</sup> The fact that to reach Mt. Calvary from downtown required at least one and sometimes two transfers made it a somewhat inconvenient route, and it was never a popular route. In fact, the United reported that revenues from the line covered only about 15% of its operating expenses; but that was United's burden, for the Mt. Calvary line too was operated by the PRL&P under a contract which was at least profitable to them.<sup>26</sup>

One other turn-of-the-century diversion was turned to the profit of the traction company: the Chautauqua. A large Chautauqua grounds had been established at Gladstone, between Milwaukie and Oregon City, before the inter-urban passed by in 1893. The East Side Railway, sensing potential revenue, placed a stub track to the grounds which for years carried thousands of Portlanders out of town to hear uplifting and literary lectures and to participate in the camp meeting atmosphere.<sup>27</sup>

In addition to rides generated by necessity and convenience--between home, work, and stores--and purposeful excursions to amusement parks, the zoo, the cemetery, the Chautauqua, and picnics and ball games, a not-uncommon phenomenon was more or less aimless trolley riding. The cheapness of trolley fares inspired some people to use the trolley to explore unknown sections of the city, in much the same way that later generations were to use their automobiles for the same purposes. Summer brought a variation:

"In sweltering weather traction companies would notice evening traffic increases on open-car routes, reflecting the numbers of people who rode the cars at random in the evening, just to cool off. In a day without movies, air conditioning, or electronic amusements, riding nowhere in particular on a hot evening was a happy custom"<sup>28</sup>

Thus the trolley brought other facets of rurality close to city living. It was not only possible to live in



a suburb with one's rose gardens and chickens, while still being close to the employments and diversions of city life, it was also possible to escape further into "real country" on the trolleys. The trolley was a convenience which could make the rural ideal a reality to city-dwellers. By doing so it may well have enhanced the appeal of the automobile, which could promise the same benefits and more: the trolley might carry you easily from the city streets to the untrammelled countryside, but so could the automobile. The automobile could take one places where the trolley crowds had not yet beaten down the country grasses, in the company of one's selected friends, and it could do so whenever the fancy struck the driver. It was not tied to schedules, it could carry five people for the same expense that it could carry one, and it could take a direct route from home to the picnic grounds: one didn't have to rattle downtown, mingle with a vast throng of other transferring passengers, and share a seat or a strap with ladies in hobbleskirts and businessmen smoking cigars. The life style which the trolley had made possible did not change dramatically with the introduction of the horseless carriage. The automobile was basically a more prestigious, adventurous, convenient, and flexible mode of carrying out the same aspirations which had fostered the streetcar's short but fabulous success.

### III: Line by Line by Line

#### Introduction

This chapter, in spite of embellishments designed to disguise the fact, remains simply an account of the physical spread of the street and interurban railway network in Portland. The account itself is a project rather than a thesis, but the development of the account provided the needed basis both for the generalizations of the previous chapter and for a statement on the lasting vision which underlies the success of that streetcar network, the appeal of the automobile, and the growth of suburbia.

Essentially, the streetcar was a direct predecessor of the automobile: both were a step upward in mobility, permitting cities to spread physically while permitting the retention of the urban virtues of variety in employment, shopping, and amusement. Inherently, the streetcar was capable of fostering urban concentration as much as it was capable of allowing urban dispersal. Its principal attribute was the ability to transport vast numbers of people quickly, cheaply, and in reasonable comfort. But it became instead an instrument of urban dispersal, a duty for which it was not totally unsuited, but nevertheless one which was better handled by the private auto-

mobile. The streetcar--cheap, fast, and part of a city-wide network--made possible the bringing together of the best of the two possible worlds: the urban and the rural. Assuming a longing for the attributes of rural life, of privacy and greenery and a home of one's own, and assuming too the attractions of urban life, of wider employment opportunities, of a variety of stores and amusements, of personal contact, there is a possible explanation for why the streetcar was used to promote urban dispersal rather than urban concentration. And in that too lies an explanation for the immediate appeal of the automobile, which could carry out the vision of making town and country one with even greater facility.

#### The Streetcar Lines, 1872-1906

Portland got its first look at rapid transit in 1872, when it was a muddy trading town of possibly ten thousand people. It had one principal street, and so it had to have a horsecar line down it. Personable Ben Holladay was one of the promoters of the project; he gave it some used rails from his Oregon and California Railroad in addition to lending his name to its list of incorporators. To do something with the supply of used rails, wooden crossties were acquired from the mill of Levi Estes; another stockholder in the Portland Street Railway. Finally a used

horsecar was shipped up from San Francisco and a mule was hitched to it. For a fare of 5¢ one could now take a horsecar ride up and down First Street from Glisan on the north to Caruthers on the south, and a car came by every hour.<sup>1</sup>

For another decade this one line was quite sufficient for Portland. The Portland Street Railway does not appear to have made anyone rich, or even very many happy, but a success of sorts it had. At one time it reputedly maintained eleven pieces of rolling stock and a stable of 35 horses (the mule was a temporary measure), although its route never expanded or contracted. It finally fell into bankruptcy in 1895. By then every other car line downtown was powered by electricity or the moving cable; the Portland Street Railway no longer served the principal business street, population centers were spreading, and without transfer arrangements the line was then wholly obsolete.

A decade passed, during which time the population of the town doubled to nearly 20,000; an occurrence which of course required land, which existed only to the west. Clearly if the population moved westward while the center of activities remained along the waterfront, it would be necessary to provide transportation between home and work. And another company appeared to provide the service and collect its profits.

In the summer of 1882, Portland's second operating streetcar company, the Multnomah Street Railway, was formed. A few months later it began to lay tracks west from downtown along Washington Street to 23rd Street at the base of the West Hills. Before the year was out horsecars were regularly operating on the line, which connected the business district with a burgeoning residential area in Couch's Addition and south of it. Small houses were rapidly filling up the flatlands west of the city center, while a portion of Couch's Addition became for a time the location of the palatial wooden mansions of the city's wealthy, known as Nob Hill.<sup>2</sup> It was no match for San Francisco's Nob Hill, but for a frontier city it sufficed as a center for the social and economic elite. South of Burnside and Nob Hill was a hilly area inhabited by Chinese gardeners clinging to the lands along Tanner and King's Creeks, and rows of small wooden gothic houses.<sup>3</sup> To tap the area south of Burnside, the Multnomah Street Railway in 1883 opened a horsecar line on 13th Street, from Montgomery Street north to a connection with their Washington Street line. In the same year they constructed a line north along 15th Street from Washington to Savier, reaching another region of middle-class housing just east of Nob Hill. The Nob Hill area itself was never exclusively for the wealthy; although many of the blocks boasted

a single towering household surrounded by gardens, intervening blocks were scattered with the small lots and homes of lesser merchants and clerks.<sup>4</sup>

The wealthy might cling to carriages for their transportation, but there were still large numbers of horsecar patrons moving into the area. So, in the spring of 1883, another company edged into the race for traffic from the northwest section, the Transcontinental Street Railway. Ambitiously named, it proceeded on a not-so-ambitious track-laying program, with lines west on Glisan Street from 3rd to 19th, and south on 3rd to Morrison Street in the heart of town. Three years later the Transcontinental built two parallel lines west from 3rd along Yamhill and Morrison Streets to 18th, invading territory served by the Multnomah's 13th Street line. By the late 1880's the Transcontinental paralleled the Multnomah's main Washington Street line within a few blocks on either side. At some date before 1889, the Transcontinental apparently built another line in Couch's Addition, north from Glisan on 13th to Savier and then west to 24th Street. The Multnomah, now the Metropolitan Railway Company, met the competition by electrifying its lines early in 1890 and by extending its tracks north on 23rd and Thurman Streets deep into Willamette Heights in 1891; Willamette Heights soon became another region of fairly expensive residences.

Around 1890 the west side was the site of intense activity in street railways. Electric cars made their debut in November of 1889, when the Willamette Bridge Railway began running cars from 3rd and Glisan, just north of the city center, to Albina across the Steel Bridge. A few months later the horsecars were eliminated from the former Multnomah lines. In January of 1890 the Steel brothers, George and James, opened a new and model electric line to the south of Portland. This venture, the Metropolitan Railway, was promoted to enhance the value of the brothers' property in an addition they called Fulton Park, some four miles from the city center. The Metropolitan entered into a contract with the Sprague Electric Company, which had equipped America's first successful electric line less than two years earlier, to provide equipment for the suburban road.<sup>5</sup> A cable car line began operating in Portland in February, 1890, on a route running north from Glisan, near the railway terminals, along 5th and Jefferson Streets to 18th. There, from the depths of a depression called Goose Hollow, the line ascended on a long trestle to Spring Street on Portland Heights and turned west again to end at the city limits on the flanks of Council Crest. This monumental venture cost stockholders over three-quarters of a million dollars and was a financial failure from the first day.

But it began to sell real estate on the once foreboding hills, where view lots at \$250 had previously gone begging.<sup>6</sup>

The major streetcar routes on the west side were completed by the early 1890's, although changes were still forthcoming. By 1895, when the Portland Street Railway ceased its lethargic operations, the west side lines were all electric or cable operated. Downtown operations were consolidated to reflect the fact that by 1892 all of the west side trackage was controlled by three companies: the Portland Consolidated Railway, which absorbed the Metropolitan properties and an east side line to the Vancouver ferry; the City and Suburban Railway, which absorbed the Transcontinental properties and those of several lines operating across the river and on the east side; and the Portland Cable Railway and its several receivers and successors. Street railway tracks spread over 3rd and 5th Streets with loops of trackage into 1st and 2nd Streets, and led up Yamhill, Morrison, Jefferson, Washington, and Alder Streets. Conditions on the west side were relatively static until about 1900, when the cable car line was taken over by the Portland Railway Company, successor to the Portland Consolidated lines. The Portland Railway soon electrified the cable road from Union Station to the base of the trestle in Goose Hollow



and connected the route into its lines; the grades on the Heights were forbidding enough to save part of the cable operations for a few years.

One intangible but important modification of operations appeared sometime in the 1890's when the two major lines--the City and Suburban and the Portland Railway--began issuing and accepting transfers between their cars. They were apparently free, but were restricted to use at certain specified transfer points downtown, and could not be used at other points where tracks of the two companies crossed.<sup>7</sup> Still, such an innovation meant that most of Portland's streetcar lines were operated as part of a system well before all the city lines were brought together in 1907.

In 1904 the last portion of the cable car line was abandoned with the opening of a hair-raising electric line to Council Crest. This route turned south from the Washington Street line onto Vista Avenue, crossed a viaduct spanning Tanner Creek and Goose Hollow, and continued to the former terminus; in 1908 a loop around the top of the Crest was completed and an amusement park opened on the summit. The Heights rapidly supplanted Nob Hill as the most desirable location for the residences of the wealthy.<sup>8</sup>

The only other significant alteration in the configuration of west side car lines before 1907 was the con-

struction of a line to the grounds of the Lewis and Clark Exposition of 1905, Portland's world's fair. The line was retained after the fair to serve industries which were located on the former fairgrounds and the inhabitants of a "Slabtown", principally of Scandanavian immigrants, which clustered about the site.<sup>9</sup>

Streetcars came to the east side of the river in the late 1880's; the first horsecar line was projected by the Willamette Bridge Railway in 1887. In that year tracks were laid along Grand Avenue, the principal retail street of East Portland, from just below Albina south to the edge of Stephen's Gulch. A branch west on Morrison Street carried the horsecars over the new toll bridge to the city center by March of 1888. In November of 1889 the east side was linked to Portland by the electric cars from Albina, and the company's other east side lines were gradually electrified also.

The Willamette Bridge apparently began operations on the St. Johns line about 1890. Beginning in Albina on Williams Avenue, it extended crookedly north and west on Williams, Fremont, Mississippi and Albina, Killingsworth, Greeley and Lombard Streets to the town of St. Johns, leaving in its wake a multiplicity of subdivisions. The line was originally powered by steam dummy locomotives, but by 1899 electrification had been extended as far as

Killingsworth and Interstate Streets, leaving only half of the route to be covered by the steam cars. The hourly connecting steam trains, complete with conductor and tickets, were displaced by through electric cars by 1904; with the electric cars came the 5¢ fare, a double-tracked line, and a car every twenty minutes, and the subdivisions began to sell a few more lots.<sup>10</sup>

About 1900 an alternate route was constructed for the St. Johns cars, directly north on Williams to Killingsworth Street; this left the trackage on Mississippi and Albina Streets to be served by local cars.

In September, 1888, the Portland and Vancouver Railway opened a suburban steam line from the east end of the Morrison Street Bridge north along Union Avenue. Near Portland Boulevard the line swept east for a few blocks to serve the subdivision of Woodlawn before swinging west and north again across Columbia Slough, a mile of swamplands, and Oregon Slough to the ferry terminal on the banks of the Columbia. In 1893 electric cars began running on the line, and a year later they were operating directly to the city center over the new Burnside Bridge. By 1897 cars ran to Vancouver every forty minutes; additional cars terminating at Woodlawn gave service from there at twenty-minute intervals.<sup>11</sup> In 1903 Vancouver cars were still operating at 40-minute headways, but service

as far as Woodlawn had doubled.<sup>12</sup>

In July of 1903 the Alberta line was opened over the Steel Bridge and along Union Avenue to Alberta Street, to terminate at E. 25th and Alberta in a new residential district. Also in 1903, a short section of track was laid from Union Avenue through Albina on Russell and Shaver Streets to the Overlook district, probably extending downtown over the Burnside Bridge.

Another 1903 extension was the Broadway line from downtown over the Burnside Bridge and along Union Avenue and Broadway to E. 21st, where it turned south to terminate at Halsey Street. The Irvington line of 1900 served part of the same district; crossing the Steel Bridge, it went east on Holladay and 15th Streets to Tillamook Street. The Alberta, Broadway, and Irvington lines after 1900 provided the first tentative service into the hertofore randomly platted but unsettled tracts of land which covered the entire area north of Sullivan's Gulch and east of Union Avenue--virtually all of northeast Portland. The northeast sector, in the ensuing fifteen years, was to be the location of real estate promotion and subdivision on a large scale: Rose City Park, Beaumont, and Alameda were developed during this period, and the Irvington subdivision, platted in the 1880's, only then became eminently desirable property.<sup>13</sup>

The Portland and Fairview Railroad in 1890 projected a steam line from Portland to Fairview, near Troutdale, but settled for the construction of a road as far as Montavilla. Montavilla at that time was the creation of a hopeful subdivider who platted the area as Mt. Tabor Villa, only to have the name immediately corrupted to Montavilla.<sup>14</sup> The Montavilla line opened in 1892 on a route over the Morrison Bridge and down Grand Avenue, Ankeny Street, E. 28th, and Glisan to 80th Street, where the tracks turned south to Stark. A substantial portion of the route passed through the center of one of William S. Ladd's farms, which was not subdivided until 1910.<sup>15</sup> In about 1894 the route was electrified,<sup>16</sup> and the line apparently soon became a part of the city system despite its long trek across the Ladd farm and through unsettled timberlands.

Little more than half a mile south of the Montavilla line was the Mt. Tabor road, opened in 1888 by the Willamette Bridge Railway as a steam dummy line. It began at Grand and Morrison Streets in East Portland, where connections were made with the horsecar lines across the Morrison Bridge, and proceeded eastward along Morrison and Belmont Streets to about E. 34th Street in Sunnyside. In 1889 an extension from Sunnyside was opened to about E. 69th and Yamhill Streets on the north side of Mt.

Tabor, and in 1894 the City and Suburban electrified the line.

A mere six blocks south of the Mt. Tabor road were the tracks of the Mt. Tabor Street Railroad on Hawthorne Street. Steam operations were begun in 1889 from Grand Avenue to about E. 50th Street. Service to downtown did not come until some time after the opening of the Madison Street Bridge in 1891. In 1892 the Hawthorne line was acquired by the East Side Railway, which was constructing the Oregon City interurban railway. In the same year, the Portland, Chicago and Mt. Scott Railway opened a connecting steam dummy line from Hawthorne on E. 50th to Foster Road and along Foster to 72nd, where the line turned south to Woodstock to bring the tracks closer to the subdivision of Chicago. The line turned east again on Woodstock to Foster Road, paralleling it to about 102nd Street in Lents. The properties continued under separate operation as a suburban steam line until 1901, when they were purchased by owners of the Hawthorne line and electrified. Service on the Hawthorne and Mt. Scott lines was apparently quite light until through electric car service was begun, although in 1897 the East Side could at least boast of thirty-minute headways on the Hawthorne route.<sup>17</sup> Travel to downtown from points beyond 50th and Hawthorne required at least two fares and three conveyances,

an inconvenience not favorable to building up a large traffic. As previously related, however, the introduction of through service and low commuter fares produced a fantastic increase in travel over the lines and an equally fantastic increase in residential sales and building along the route.

In December, 1889, the Thompson-Houston Electric Company began to build and equip a demonstration electric railway in southeast Portland. Thompson-Houston was a rival of the Sprague Electric Company for supremacy in the new field of electric railways, and held a valuable patent on one of the first practical current collection devices.<sup>18</sup> With Sprague equipping the Metropolitan's Fulton Park line, Thompson-Houston needed a local showcase. Their exhibition line extended from downtown across the Madison Bridge and along E. 12th and Clinton Streets to 26th. There the route divided: the Richmond line continued east on Clinton to 41st Street while the Woodstock branch turned south on 26th to 28th, Gladstone, 42nd, and 41st Streets to Woodstock. The two lines were opened in 1890; serving a wilderness area, the lines' hopes had to be predicated on the successful sale of residential lots in the string of Sir Walter Scott-inspired subdivisions which they tapped: Kenilworth, Ivanhoe, Richmond, Waverly (sic), Waverleigh Heights (sic) and

Woodstock. In 1891 the Thompson-Houston lines became part of the City and Suburban system, afterwards leading rather uneventful lives. The suburban districts along their tracks filled up slowly but steadily, and a small community grew up at the end of the Woodstock line with a post office to proclaim its existence.

The East Side Railway, which opened a 14-mile electric line from the center of Portland to Oregon City in 1893, crossed the Madison Bridge and went south on E. 11th Street and Milwaukie Avenue to Bybee. There the line turned west to the edge of the river bluff and along 13th Street through the city of Sellwood before striking overland for Oregon City. Until 1903 it was an interurban operation of increasingly heavy density. That year saw the construction of a high-speed water level line from the Madison Bridge to Sellwood, and shortly thereafter the original line to Sellwood along Milwaukie Avenue became a purely local streetcar line running every fifteen to twenty minutes.

One other short east side route dates from before 1907, the Brooklyn, probably built in 1902. Crossing the river over the Morrison Bridge, it turned south on Grand Avenue and crossed Stephen's Gulch; it then turned onto Woodward Street and the Powell Valley Road, crossed the Oregon City tracks, and continued east to 21st, where it turned south once more to terminate at Bush Street and



the Southern Pacific's Brooklyn Yards.

The Few Years of Triumph: 1907-1920

To continue the account of car line extensions and operations beyond 1906, the tedious recital process could still be used. And it will be, but the existence of a more comprehensive collection of information on operations does permit something more to be made of the account. In addition, there is more of interest to be extrapolated from the account of these years: the automobile puts in its first appearance, the connection between real estate promotion and streetcar extensions becomes explicit, and the patronage of the streetcar system reaches its peak. Population increases and decreases can be traced to some extent, as can the increase or decrease of streetcar patronage; and a new phenomenon becomes evident, one to be noticed.

That phenomenon, is the commuter rush. Particularly on older lines, rush-hour travel tends to increase while off-peak use remains relatively stable or even declines. Whereas in halcyon times the streetcar management could count on a fairly steady traffic throughout the day, naturally with some marked increase during periods of home-to-work and work-to-home travel, an increasing proportion of patrons now begin to travel only during those

few hours, to leave an ever-larger proportion of equipment and employees needed only for a few peak hours of profitable use. The phenomenon is today evident in distressing proportions, but it began quite early. The streetcar gradually becomes, even by 1920, a vehicle of single purpose: commuting. A declining proportion of riders, though not a declining number until after 1920, use the streetcar for shopping, for excursions and outings, and as a general means of urban transit: these are the areas in which the automobile first shows its capabilities, and this is the traffic which is first lost for the streetcar.

The Portland Railway, Light and Power Company took over the Portland Railway and the Oregon Water Power and Railway properties on the first of January, 1907, thus completely consolidating the city street railway network. The PRL&P inherited a vast and somewhat jumbled electric railway system in two different gauges, a few instances of parallel routes, and about 60 million yearly passengers. Almost immediately the company had to revise traffic patterns in the downtown area, consolidate lines which had previously been operated as separate segments by separate companies, and construct loops and interchanges to handle the revisions. For several years after the consolidation the PRL&P kept some records of its operating procedures

and revisions; one set of figures is of some interest. Between 1907 and 1913 the company kept an account of the minimum and maximum number of cars generally in use on each line: the minimum number indicating how many cars were needed to provide basic service in day and evening off-peak hours, the maximum number those needed to provide peak hour service. Such figures can reflect trends in peak hour and off-peak travel, load increases or decreases on lines, and the growth or lack of it in various suburban areas.

To begin with a possibly poor example, the Fulton line, opened in 1890, and in 1907 extending from the city center south some four and a half miles to Riverview Cemetery, during the period 1907-1913 used three cars in regular off-peak service: an indication of relatively low-frequency service. Until 1909 the same three sufficed to handle rush-hour traffic as well, but in 1910 a fourth was needed, and the next year a fifth. Seemingly the Fulton line served an area of low population density, with few commuters, and did not experience a great population growth during the period, as most other Portland residential areas did.<sup>19</sup> Unfortunately, for an account of this line at least, such an extrapolation might well be incorrect, for a line with a different designation also ran over part of the Fulton line, with cars labeled North

and South Portland. The North and South Portland cars originated in northwest Portland (the exact terminal shifted three times in the seven years) and carried traffic along 16th and Glisan Streets to downtown. Passing through the city center on 3rd Street they terminated at Fulton Park, although during certain unspecified periods they too continued all the way to the cemetery. Statistics on the number of cars in use on the North and South Portland line confuse things further: in 1907, at least ten cars were needed, falling to seven in 1908 and reaching eight from 1909 on; the number in use at peak hours was 19 in 1907, falling to 16 two years later, and rising fitfully into the twenties thereafter to register 28 in 1913. The figures tell little but that peak hour usage increased while off-peak travel remained somewhat stable. Complications arise from the frequent changes made in the length and route of the line, and it is impossible to ascertain why, or where--between Guild's Lake and Riverview Cemetery--traffic was fluctuating. A study by the Pacific Telephone and Telegraph Company in 1916 does show, however, that northwest Portland experienced an increase in population during the years 1910-1916, while a population decrease amounting to perhaps 3,000 persons occurred in South Portland and Fulton.<sup>20</sup> The increase in the number of cars used on the North and

South Portland line may then reflect only increased peak hour traffic from the northwest, and perhaps the carrying of workers to manufacturing plants which did develop in the Fulton area.

The lines in northwest Portland--Couch's Addition--were the revised structurings of the horsecar lines of the middle and late 1880's; they served an area, now, in 1907, long open to development. Still, in the years after 1907, the population of the area increased somewhat,<sup>21</sup> as did consequently the use of the streetcar in transporting people to and from downtown. On the 23rd Street line, on Washington, Burnside, and 23rd Streets, the 10-minute headways of 1897 become 7-minute headways by 1903 and 5 minutes several years later.<sup>22</sup> Between 1907 and 1913, five to six cars handled off-peak travel on the line, while the number required at peak periods increased from ten to 16, and in 1910 tripper cars began turning back at 23rd and Lovejoy. On the Portland Heights-Council Crest line, four to five cars usually sufficed, but after 1908 rush hour needs increased: ten cars were required by 1913. The later increases in traffic on the Portland Heights-Council Crest and 23rd Street-Lovejoy lines can in part be attributed to the fact that three wholly new lines appeared in west side Portland after 1911: all three were shuttle routes connecting with those lines. All three were also West Hills real estate promotion

lines. The first was the Kings Heights line, opened in 1911 from 23rd and Burnside up the canyon of King's Creek and north into the subdivision of Kings Heights. It was built by the Heights Company, the developers, and was operated by the PRL&P under contract. A mile-long extension of the route, owned by the United Railways and also operated by the PRL&P under contract, continued west to Mt. Calvary Cemetery.<sup>23</sup> In October, 1913, the same Heights Company constructed the Arlington Heights line, branching from the Kings Heights line into the hills on the south side of the canyon; again the PRL&P was guaranteed an initially profitable operation by the developer. A few months earlier the Lewis, Wiley Hydraulic Company persuaded the PRL&P to operate their car line from 23rd and Northrup Streets into the development of Westover Terrace, just north of Kings Heights, in return for \$500 monthly and an agreement by Lewis, Wiley to own and maintain the track. All three lines served new and expensive residential districts which had the disadvantages, from the standpoint of streetcar operations, of not acquiring population rapidly, of attracting a decidedly upper class population, and of purposely requiring a very low density of population. In 1916 perhaps thirty families lived along the Arlington Heights line, forty on the Westover Terrace line, twenty on the Kings Heights line.<sup>24</sup> With the rapid conversion to automobile use among the wealthy--and

virtually only the affluent could live in the Heights--these three lines became abysmally unprofitable to the PRL&P when it ceased contract operations in the 1920's.

On other west side lines--the 13th Street line between Washington and Montgomery, the South Fifth Street local, the 16th Street line in northwest Portland, the Montgomery cars on 11th Street to Montgomery and 16th, the Jefferson line over part of the old cable route, and the Hospital shuttle car on Glisan from 21st to 24th Streets--the number of cars used and the frequency of service remained quite stable, with rush hour increases; and it may be assumed that the population of the area was relatively stable as well.

On the east side, the St. Johns line still lingered in a suburban atmosphere; a schedule was published for the route since cars ran on headways of twenty minutes or less. After 1905 tripper runs were established on Williams Avenue, and St. Johns cars ran nonstop from the bridge to Killingsworth Street. Again, off-peak service remained stable through 1913, although the route was lengthened in 1911 with the construction of a loop through the north peninsula on Wall, Fessenden, and St. Louis Streets. But the number of cars necessary in rush hours was eight in 1907, and thirty in 1913--six times the off-peak fleet of five. An extension from the end of the St.

Johns line to the Municipal Terminal was opened in the closing months of 1920; this line was an obvious effort to provide transit access to a new point of employment. One of the last streetcar routes constructed, it was also one of the first to fall to the buses: the track was torn up again in 1929.

The Mississippi line after 1907 used an increasing number of cars as the open spaces in upper Albina were covered with homes. A shuttle line which funneled traffic onto the Mississippi cars opened in 1909; tapping a previously inaccessible area north of Killingsworth between the St. Johns and Union Avenue-Vancouver tracks, the Kenton line went north on Albina to Lombard and Derby Streets, terminating at Kilpatrick Street. At that terminal connections could be made with the Kenton Traction Company which ran still farther north to the new Swift packing plant on Oregon Slough and to several other industrial plants. The Kenton Traction was apparently affiliated with industrial real estate promotion; it was not associated with the PRL&P and it cost another nickel to ride it, but it did extend the network of streetcar travel to a previously remote and useless area and permitted Swift and Company to depend on a supply of automobileless workers despite its location a mile and a half from inhabited lands. From 1912 the Mississippi cars ran all the way to



Derby and Kilpatrick Streets, eliminating the Killingsworth transfer.

Four different car lines ran on Union Avenue in 1907: the Vancouver interurban passed by every thirty to forty minutes without stopping; local cars to Woodlawn near the city line went by every ten minutes; Alberta cars ran as far north as Alberta Street about every twenty minutes; and every four to six minutes a Union Avenue tripper covered much of the route. The only major change in the Vancouver route was the demise of the ferry run in 1917 when the Interstate Bridge was opened and Vancouver cars for once went directly to Vancouver. Woodlawn, being an old suburb, produced a steady patronage; the line was extended east on Dekum Street to 24th Street by 1913. The extension resulted in sharply increased rush hour car requirements. The Alberta line, tapping a relatively new residential area, showed a dramatic increase in service between 1907 and 1913 and the line was extended east to 30th and Ainsworth Streets by 1909. The four to ten cars on the route in 1907 became six to twenty cars five years later.

The short Irvington line had but a minor blossoming. Its length nearly doubled in 1910 when the terminus on 15th Street in lower Irvington moved a mile northward to Prescott Street in the Alberta district, but from three

to five cars carried all the passengers. Irvington was a fairly expensive suburb from the 1890's, and no working class mass thronged to the cars.

The Broadway cars, skirting the lower end of Irvington, placidly carried patrons to 21st and Halsey Streets until 1909. Late in that year the terminal was changed to 24th and Broadway, and a few months later a shuttle car began operating on 24th from Broadway to Fremont, a half mile north. In March, 1911, the Alameda Park Land Company opened a quarter mile of track from Fremont to 29th and Mason Streets, with the PRL&P again contracting to provide service. The shuttle car was soon discontinued in favor of through cars, and a parallel track north from Broadway on 22nd Street provided a double-tracked line. Again, penetrating an undeveloped area, the service multiplied in frequency in rather few years.

The short East Ankeny line, a shuttle service over the Montavilla line from E. 28th and Glisan, shifted its terminal to a few blocks north of Glisan on Sandy Road. From this point, in 1907, the real estate firm of Hartman and Thompson constructed a line on Sandy to E. 67th Street to serve their immense subdivision of Rose City Park. Once again the PRL&P was contracted to operate the cars, and Hartman and Thompson pointedly referred to the direct streetcar to downtown in their promotional literature.

"Portland is the wealthiest and fastest growing city in the United States. ROSE CITY PARK is its most desirable residence section. It has every modern improvement, 10 minute street car service, city water, electric lights, telephones, graded streets, cement sidewalks and curbs, and a building restriction of \$1,500, rigidly enforced. No saloons. No business except on sites specially reserved."<sup>25</sup>

In 1912 the line was continued to 82nd Street and a connection with the Troutdale Electric Railway, operating a street railway in Parkrose.<sup>26</sup> Late in 1911 the Beaumont Land Company contracted with the PRL&P for the operation of a stub line from Sandy Road and 42nd Street on 42nd to 41st and The Alameda. During peak hours through cars ran to and from downtown, an arrangement made permanent in 1914.

The East Ankeny tripper car continued to run until 1911, when the opening of the former Ladd farm as the subdivision of Laurelhurst prompted an alteration to continue alternate cars on Glisan direct to the real estate office. In 1912 the section on 28th Street was extended across Sullivan's Gulch to Halsey Street, and a year later the line dissolved to become only the East 28th Street shuttle car between Glisan and Halsey, with Rose City Park and Montavilla cars handling traffic for Laurelhurst.

On the Montavilla route, the number of cars necessary to serve the increasing passenger load nearly doubled in six years. In 1911 a stub line was opened from 80th and

Glisan to 90th and north to Irving and the Montavilla depot of the Mt. Hood Railway and Power Company, a sickly would-be interurban line heading for Bull Run. In 1913 Montavilla cars began alternating between the two terminals.

To the south, the Mt. Tabor line stretched east another twenty blocks to 88th and Yamhill in 1912 with the Altamead extension, possibly also a real estate project. In 1909 tripper cars to Sunnyside (E. 34th Street) began running; Mt. Tabor cars ran every ten minutes, with a Sunnyside car every ten minutes in between. Between 1910 and 1916 the Sunnyside district experienced a decrease in population of about 600, but districts to the east along the Mt. Tabor line absorbed at least three times that number in the same period.<sup>27</sup>

Along the Hawthorne and Mt. Scott routes, to provide vivid testimony to the growth of population along the once-rural right of way, service frequencies increased at a very rapid rate. On the Hawthorne line, until 1913 merely a tripper service to E. 50th Street, cars ran on headways of  $7\frac{1}{2}$  to 20 minutes; the three to five cars of 1907 became four to seventeen cars in 1912. In 1913 the tracks were extended on Hawthorne, 54th, Lincoln and 60th Streets to Division. The Murraymead shuttle line was opened in the same year from Hawthorne Street on 20th and Harrison to 30th Street. A short-lived and insig-

nificant line, the Murraymead shuttle tapped the eastern edge of Ladd's Addition, a 1910 subdivision, and newly developed lands between Hawthorne and Division Streets, but a single car could carry all the traffic.

The Mt. Scott line had cars every ten to twenty minutes in 1909, requiring from four to sixteen cars to maintain its headways, but by 1912 twelve cars were never off the line and 42 were needed to carry a crush of commuters every morning and evening. The population increase along the Mt. Scott track between 1910 and 1916 was greater than that along any other route in the city.<sup>28</sup>

On the Richmond and Woodstock lines too, residential areas, accessible by streetcar since 1890, were still absorbing new homeowners, though at a slower rate. Richmond and Woodstock cars each ran every twenty minutes, a headway reduced to 17 minutes in 1913 when the Woodstock line was extended along Woodstock to 57th Street.

The Sellwood line by 1909 had cars every fifteen minutes; off-peak service remained fairly constant thereafter while rush hour traffic experienced the familiar explosive growth. In 1912 a shuttle run was inaugurated from the Sellwood line at Milwaukie Avenue and Bybee on Bybee and 32nd to Rex Street in the subdivision of East Moreland. The East Moreland line was constructed by the Ladd Estate Company to provide access to their properties, and was again a contract operation with the PRL&P. Al-

though as late as 1916 less than ten families lived in East Moreland, the car shuttled back and forth every twelve minutes, perhaps carrying prospective investors, and also carrying construction materials and later students to Reed College.<sup>29</sup> The East Moreland line, like the west side Heights lines, was a subsidized project which may have served its purposes for the initial real estate subdividers, but which failed to produce enough revenue of itself to be a profitable operation after the realtor ceased to subsidize it. East Moreland too was designed to be a fairly expensive suburb of low population density, and the lots did not sell quickly. As a consequence, the East Moreland line was the first streetcar line to be replaced by buses, which took over the route in 1926.

Late in 1913 the Fred A. Jacobs Company, another real estate firm, opened a free electric line from 32nd and Knapp Streets in East Moreland along Knapp to 52nd Street. This, the Errol Heights line, also ran every twelve minutes to connect with the East Moreland car, but at first only between six and ten in the morning and three and eight in the evening, and it averaged 300 passengers a day. Probably in 1914 the Jacobs Company reached an agreement with the reluctant PRL&P to assume operations on the line. The line was poorly built and

had to be reconstructed by the realtor, who also subsidized the line thereafter.

The East Moreland and Errol Heights subdivisions were both developed toward the end of the streetcar era, at a moment when it began to become apparent that the automobile was a coming thing. East Moreland had its streetcar line like every other major development of the time, but all its streets were paved before the lots went on sale. This was an almost novel concept: the Rose City Park development of 1907 boasted of graded streets and paved sidewalks, but East Moreland paved the streets, paved Bybee to Milwaukie Avenue, and paved Woodstock to 41st Street. That was a rather farsighted maneuver since streets in Woodstock were still gravel and mud in 1920.<sup>30</sup> The west side Heights lines and the East Moreland line provide an insight into what was in store for the street railway and its position as the seller of lots and the builder of homes: even in 1912 allowances had to be made for the automobile, and a streetcar line alone could not provide the magic touch to raise property values.

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Although passenger total statistics are not available for individual lines, they are available as totals for the entire PRL&P system for a scattering of years, as are totals for the company's interurban operations. A re-

view of these figures illustrates the streetcar riding patterns to the 1920's: city passenger totals rise dramatically until 1914, fall equally dramatically for two years, and then rise again to peak in 1919 at a figure nearly double that of 1908; they fall gradually until the mid-1920's when the long downward plunge begins. Interurban patronage on PRL&P lines shows erratic increases confused by accounting irregularities with certain "city" lines, but traffic peaks a year earlier than on the city lines and falls at a much more rapid rate thereafter.

In 1908 the PRL&P reported over 54 million passengers on their city lines and nine and a half million on the interurban lines. Until 1914 the designation "interurban" included traffic from four lines which were actually city lines, but which were of standard gauge; the rest of the city system was of narrow gauge trackage. Two years later, in 1910, the city lines carried over 70 million riders and the interurban roads sixteen and three-quarter million; much of the increase in the interurban total can be attributed to traffic on the Mt. Scott line, which was actually part of the city system. In 1911 the city lines again increased their traffic, while the interurban lines registered a slight decrease apparently as the result of the completion of several hydroelectric projects which had involved carrying workers to remote damsites on the



Clackamas.<sup>31</sup> Year-by-year figures are unavailable to help explain the situation in 1912-1917; in 1914 the city lines carried over 85 million passengers, but a good part of the increase was due to the transfer of accounts of the Mt. Scott, Hawthorne, Sellwood and Oaks lines to the city railway totals. In the same year the interurban division showed, naturally, a substantial loss in traffic, but the city lines did not evidence a truly healthy increase. For 1914 was the first year of the great jitney plague.

Apparently a sudden phenomenon which struck most of the nation at almost the same instant, the jitney plague consisted of private citizens possessing an automobile who made a practice of driving about picking up passengers at streetcar stops and taking them to their destinations for 5¢. A rumor spread that the practice was extremely profitable, and that one could pay for the cost of one's automobile in a few months of jitneying. As a consequence, people reportedly purchased automobiles on the assumption that, though they could ill afford one on their own incomes, the revenues from a few months of rush hour jitneying would more than make ownership possible: it would even make it profitable. For a couple of years, the jitney was a serious menace to streetcar traffic; it was unregulated, irresponsible (both legally and rhetorically), un-

insured, it generally provided service only at peak hours, and streetcar officials, hackmen, and taxi drivers hated them.<sup>32</sup> By 1916 they were regulated out of existence in almost all cities, including Portland, but the economics of jitney operation had by that time proven themselves specious anyway. Traffic totals, after showing a sudden drop of 11 million riders by 1916, began climbing again despite a violently unpopular fare increase to 6¢.<sup>33</sup> In Portland, the total ridership in 1916 on city car lines was about that of 1911, although over thirty miles of heavily-traveled main line (the Hawthorne, Mt. Scott, Sellwood, and Oaks lines) had been added to the system since 1914 and several miles of new line had been constructed during that period. But in 1917 it was up again to nearly 85 million, and in a final burst of outward prosperity ridership passed 90 million in 1918 and peaked in 1919 at an incredible 100,301,800; 1920 showed only a slight decrease. There was no denying the streetcar a place in Portland's transportation scheme; statistically, in 1919 every resident of the city made 500 trips by streetcar. The first face-to-face encounter with the automobile had been won; real estate developers clearly recognized the impact of streetcar service on the value of their lots; and mobility within the city was calculated on the availability of adequate streetcar service.

### The Interurban Lines

Although this thesis is concerned primarily with streetcars and urban transit, it is obvious that many of the streetcar lines of 1920 had begun as suburban or interurban services and evolved into local car lines as traffic increased along the tracks and the city spread outward along them. By 1907 all but three of the electric lines in the Portland area had acquired the attributes of urban streetcar lines: the 5¢ fare, the free transfer, stops at every street corner, and headways frequent enough that a schedule was superfluous: a car would be along every few minutes. The three exceptions were also properties of the PRL&P: the Oregon City line, which since 1903 possessed a high-speed private right of way out of Portland, the Cazadero line with its new branch to Troutdale, and the Vancouver line. Between 1907 and 1917 a number of independent electric interurban lines were built out from Portland--several hundred miles of them. Although they could be said to fall outside the scope of this thesis, they do have some bearing on the growth of Portland as a "streetcar" city: they were the logical extension of the possibilities of electric transportation on steel tracks, they promoted the growth of still more distant suburbs, and, like the city lines built in the same period, they felt the impact of the automobile even

as they were being constructed. They had one other attribute common to streetcar services: they were blessed and cursed with tracks through downtown streets. This enabled the interurbans to provide the appreciated convenience of local, corner to corner stops in the city center, where most of the passengers were destined. But it also meant a frustratingly slow exit from the city which became simply another point against the electric cars and in favor of the automobile as an agent of suburban transportation. As an extension of the promise and practice of the streetcar, the interurban deserves a place in this account.

In the last few years of the electric fever, several interurban lines developed in Portland to cast a brief spell: the Oregon Electric came in 1908, the United Railways in 1909, the Mt. Hood Railway in 1913, and the Southern Pacific electrification in 1914. The interurban lines of the early twentieth century made possible the conversion of distant rural communities--Burlington, Garden Home, Oswego, Tualatin, Beaverton, even Hillsboro and Forest Grove--to bedroom towns. The abrupt rise and fall of these later interurbans, and the effects of their growth, mirror the rise and fall of the urban street railway, but in a much briefer time span: the streetcar came to Portland in 1872 and left in 1950, while the interurban

lines built after 1907 were in effect gone twenty years later.

The interurban lines of the Portland Railway, Light and Power Company comprised the main line to Oregon City built in 1893, the river-grade track from the Madison Bridge to Sellwood constructed in 1903, and the Springwater division to Gresham and the upper Clackamas River, which was also opened in part in 1903. An extension was constructed in 1907 from the Springwater division to Troutdale, and in 1912 the PRL&P took over the properties of the Mt. Hood Railway and Power Company, which had a steam line from Montavilla to Bull Run, crossing the Troutdale extension.<sup>34</sup>

The Oregon City line, the main line of the system, did not fare well in the depression of 1893 and passed through nearly a decade of receivership before becoming part of the Oregon Water Power network in 1902. Traffic on the line continually increased during this period, however, and the effects on property values and suburban development have been noted previously. The hourly daytime service of 1893 gave way to 45-minute headways by 1897, and in 1908 to half-hourly headways until 9 pm and hourly until midnight, with rush hour tripper cars to Oak Knoll and Milwaukie.<sup>35</sup>

The Springwater division, first opened in 1903 to carry materials and workers to the PRL&P's hydroelectric

projects on the Clackamas, seemed unpromising as a suburban passenger carrier at that time: the only town on the route was Gresham with a population of 200, and a single mixed freight and passenger train sufficed to handle the traffic. But development along the line was explosive. Small farms and suburban homes grew up in a manner fit to prove the assumption that electric cars had magical effects on property values. In 1904 the Springwater division scheduled seven daily trains of two or more cars in each direction, plus weekend extras to recreation areas along the river. In 1908 there were thirteen trains each way, seven of which continued beyond Gresham to Estacada and the end of the line at Cazadero. The Troutdale extension, opened in 1907, was somehow not so successful; through cars were not operated to Portland, but connections were convenient and eleven cars were scheduled to operate in each direction daily in 1908.<sup>36</sup>

The other PRL&P interurban was rather an orphan. The line was laid by the Mt. Hood Railway in 1911 from a connection with the Union Pacific near Montavilla south to the northern edge of Gresham and east to the small community of Bull Run and another hydroelectric project. It was built as a steam-operated line to supply construction materials, but after the PRL&P acquired the line in 1912 it was decided to electrify it, a project completed in 1913. The only connections with other PRL&P

lines were a crossing with the Troutdale branch, where passenger connections were problematical at best, and a transfer to the local Montavilla streetcar. So, still in 1913, the Troutdale cars were rerouted at the crossing to connect at Montavilla and Bull Run cars were run through to Portland, but even this alteration did not prompt the growth in traffic and suburban construction which followed the opening of the Cazadero line a decade earlier: the interurban was losing its hold on outer suburban travel even at this early date, and both the Troutdale and Bull Run services were discontinued in the 1920's.<sup>37</sup>

A Portland interurban road with a disconcerting history was the United Railways, previously mentioned in connection with the streetcar line which it built, under duress, to Mt. Calvary. The United opened an electric line early in 1909 from Portland north and west along the former shores of Guild's Lake and along St. Helens Road to Linnton and Burlington, where the affiliated Ruth Trust Company was prepared to sell you a lot in their townsite. The Hill interests, through the Spokane, Portland and Seattle, purchased the United in the spring of 1909, and its progress thereafter is confusedly linked with the unfathomable maneuvers of the Hill and Harriman interests to attain or retain control over certain aspects of Portland transportation. Avoiding a discussion of why the United was built at all after Hill acquired it, it

must be kept in mind that the reasons were not economic ones: the United maintained total insolvency for decades. In 1910 the United did carry 336,000 passengers between Portland and suburban Linnton and Burlington, with a train every hour. In the next year service was extended to North Plains and Wilkesboro in the upper Tualatin Valley via an immense and immensely expensive tunnel over Cornelius Pass in the West Hills. However, the vast bulk of the passenger traffic was always between Burlington and Portland. The northern Tualatin Valley was sparsely settled, and just a few miles south was the earlier line of the Oregon Electric, also a Hill property. Traffic on the United's inner sections burgeoned: nearly half a million passengers were carried in 1912, over 820,000 in 1914. But on April 1, 1915, electric service between Portland and Linnton was discontinued and three and a half miles of track were removed. Thereafter the electric cars, with decreasing frequency through the years, went from Linnton to Burlington and Wilkesboro, connecting with steam trains on the Astoria line for passengers going to Portland. Traffic fell to nothing in 1922 and the wires were taken down. The reasons for the discontinuance of the Portland-Linnton line revolved about a franchise clause which guaranteed a 5¢ fare between Linnton and Portland, a fare which was prohibitively unremunerative; the fight



dragged through several courts before an ultimatum was delivered to the United: the 5¢ fare or the revocation of trackage rights on St. Helens Road. Since Hill interests owned a steam road between Portland and Linnton, and since the 5¢ fare was ridiculous, the United did not hesitate to give up its franchise, leaving outraged Linnton with no further battles to fight. They not only lost the cherished nickel fare, they lost the entire railroad, and the area never quite recovered.<sup>37a</sup>

The Oregon Electric Railway began services from Portland on the first of January, 1908, with two trains a day to Salem, fifty miles away. By the end of the year a branch had been constructed west from Garden Home into the Tualatin Valley. In 1909, there were 38 trains a day on the OE, both to Wilsonville and Salem and to Beaverton, Hillsboro, and Forest Grove, as well as a few locals. Although fares were as high as on the competing Southern Pacific steam lines, commute tickets to Garden Home and intermediate points sold for 1½¢ per mile, and a commuter populace rapidly appeared. The OE tried for more than local traffic: it added parlor cars and express trains, completed its line to Eugene in 1912 and added feeder lines to Woodburn and Corvallis, and placed sleeping cars on the night train to Eugene. But 1916, in addition to numerous local suburban trains, the OE dispatched sixteen daily long distance trains.<sup>38</sup>

Rival ex-Harriman interests (the Southern Pacific) could not let this affront go by. So, for glory, not

for money, the Southern Pacific went into the suburban and interurban electric railway business in Portland by electrifying several of its west side local lines. In January, 1914, service began over two routes between Portland and McMinnville, one via Oswego and Newberg, the other via Hillsboro and Forest Grove. By 1916 the SP was sending out at least nineteen trains daily, including six to Forest Grove and nine to McMinnville.<sup>39</sup> The route was extended down the Willamette Valley until it reached Corvallis in 1917. The entire route was over existing SP trackage, and freight trains still used steam locomotives. Electrification was something of a glamor move. It was not a very successful move, for most of the passengers were commuters from Tualatin, Beaverton, and Oswego; traffic was light on the rest of the system.<sup>40</sup>

Both the "green cars" of the Oregon Electric and the "big red cars" of the Southern Pacific made a short and sudden impression on Portland and Oregon life. The rapid growth of short-distance commuter traffic marked the appearance of a totally suburban population which took the family auto to the train and the train to the city. When the roads improved, the auto went all the way to the city; the SP began cutting trains from its schedules in 1924, the OE in 1926, and by 1933 the interurban electric existed in Portland only on the Oregon City line and part of the Springwater division.<sup>41</sup>

### Finale

A splendid illumination of the attitudes which conditioned the popularity of the suburban streetcar and the electric interurban is the following effusive passage distributed by the Portland Railway, Light and Power Company. through a pamphlet entitled "Health, Wealth and Happiness on Ten Acres."

"Suburban life! What a pleasant sound the phrase has! Repeat it, and your mind's ear thrills to the music of meadow larks and robins, of tumbling creeks and fiddling crickets: yes, too, of lowing kine and cackling farm fowl. Your mind's eye greets the tinted dawn (the dawn, you remember,--so different in the country) or sweeps the sunny slopes at noon, or lingers on the shadowy hills at even.

'Breathes there a man with soul so dead

That to himself he hath not said:

'I'm going to own a house in the country'? Especially a bungalow (magic word) and five or ten acres on an electric line near some fine modern city.

"Heaven bless the man that invented electric lines, and so made town and country one--solving, doubtless, the problem of the ages: the overcrowding of municipalities..... The electric car, clean and handy,--the poor man's auto and the nabob's convenience; democratic, accomodating--stopping, without fuss or trouble, at every cross roads--the electric car is the builder of suburbs, the seller of 'acreage', the maker of joy in farm life."

from the Pacific Monthly,  
June 1908

It is quite possible that a subdued and implicit vision of the rural virtues pictured here coupled with the promise of its fulfillment by the electric cars was a forceful vision in the new industrial society which de-

veloped between 1880 and 1920. All of the other points which have been related to the growth of urban and suburban streetcar transit in this period--the growth of suburbs, the connection between land values and transportation access, the development of the transfer point as a local trade center, the maintenance and strengthening of the city center as the focal point of commerce and retail trade--are basically related to the attitudes expressed in that one passage. The actual notion of living on a small farm a few miles from some fine modern city could be seriously entertained by relatively few people, but the vast majority of people who came to and grew up in Portland could and did seriously entertain the idea of living at some distance from the city, of keeping perhaps a few cackling farm fowl, of hearing robins and meadowlarks, and of still being in cheap and easy reach of the employment, shopping, and cultural attractions of the fine modern city.

If overcrowding was indeed the problem of the ages, the streetcar did to a great extent "solve" that problem. But by 1920 it seemed the automobile might solve it even better. The streetcar, the electric interurban, and the automobile all worked toward the end of dispersing population to attain the rural virtues of privacy, self-sufficiency, quiet, and fresh air while retaining the urban

virtues of commercial and industrial employment, a wide selection of things to buy, events to attend, markets to sell in, and people to encounter.

A statement of what the streetcar era left as a relatively permanent legacy to Portland can be couched in similar terms. Basically, attitudes toward city, country, and suburb have not changed radically since the demise of the streetcar: as has been stated, the automobile is simply a more flexible instrument for the implementation, on a much wider scale, of the same program of home life in the country and business life in the city. The principal remnants of the streetcar era are not so much the radial street patterns; the small retail centers surrounding the one large center; or even simply the dispersal of population: the important legacy is the home, one for each family; surrounded by grass, trees, and gardens, and set off from contamination by industrialism (a term to include everything from the sawmill to the local drug store). A home of one's own in a quiet suburb has been a dominant concern, in Portland and over the nation, from the 1880's to the present day.

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- 5 Scott, p. 443.
- 6 Holbrook, p. 110.
- 7 Holbrook, p. 111.
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- 9 Scott, p. 143.
- 10 Scott, pp. 144, 146.
- 11 Scott, pp. 159-168.
- 12 Scott, pp. 168-173, 262.
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- 3 Mills, Railroads, p. 74.
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- 6 Laurence Pratt, I Remember Portland: 1899-1915 (Portland, 1965), pp. 63-64.

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- 11 See, e.g., Frank Sterrett, "For 75 years Rich's, 'a movable landmark'," Sunday Oregonian, March 23, 1969, Sec. F, p. 1.
- 12 Fred Lockley, History of the Columbia River Valley from the Dalles to the Sea (Chicago, 1928), p. 510.
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- 14 Mills, "Early Electric Interurbans...I...", 92.
- 16 See, e.g., assorted promotional pamphlets, Oregon Historical Society and Multnomah County Library; see also William F. Ogburn and Delvin Peterson, "Political Thought of Social Classes," Pol. Sci. Quar., XXXI, No. 2 (June 1916), 303-304.
- 17 The East Moreland line was the first to be converted to bus operation, in 1926; the Heights lines lasted into the 1930's, but only because parts of the lines were on private right of way.
- 18 Frank Rowsome, Jr., Trolley Car Treasury (New York, 1956), p. 99.
- 19 Mills, "Early Electric Interurbans...I...", 95.
- 20 Mills, "Early Electric Interurbans...I...", 95.
- 21 Mills, "Early Electric Interurbans...I...", 95.
- 22 Mills, Railroads, p. 81.
- 23 Mills, "Early Electric Interurbans...I...", 83.
- 24 Mills, Railroads, p. 81.
- 25 Harley K. Hallgren and John F. Due, United Railways of Oregon (San Marino, Calif., 1961), p. 14.

- 26 Hallgren and Due, p. 14.
- 27 Mills, "Early Electric Interurbans...I....," 96.
- 28 Rowsome, p. 103.

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- 2 Scott, pp. 430-431; Richard Marlitt, Nineteenth Street (Portland, 1968).
- 3 Scott, p. 432.
- 4 Marlitt, Nineteenth Street.
- 5 Scott, pp. 611, 621.
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- 7 Portland Railway Company, Portland Traction Company, East Side Railway Company, "Christian Endeavorers' Guide of Portland, Oregon..." (Portland, 1897)--hereafter cited as "Guide".
- 8 Marlitt, p. 5.
- 9 Unpubl. thesis (Reed College, 1918) by Libbie Krichensky, "A study of immigration in Portland, Oregon," p. 18.
- 10 Pratt, pp. 63-64.
- 11 Portland Railway et al., "Guide".
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- 13 See assorted promotional pamphlets, Oregon Historical Society and Multnomah County Library; see also, Pacific Telephone and Telegraph, Survey.
- 14 The source is unidentified, but readings of successive maps confirms the change.
- 15 See Laurelhurst promotional flyers, Oregon Historical Society and Multnomah County Library.



- 16 The statement is incorrect; it was probably electrified shortly after its construction in 1892.
- 17 Portland Railway et al., "Guide".
- 18 Rowsome, p. 90.
- 19 Pacific Telephone and Telegraph, Survey.
- 20 Pacific Telephone and Telegraph, Survey.
- 21 Pacific Telephone and Telegraph, Survey.
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- 25 See the advertisement on the back of Rev. John Roach Straton, "Portland: The Queen City of the Northwest" (Portland, n.d., c. 1907) for the real estate and banking firm of Hartman and Thompson.
- 26 Roy Reese Roblee, Portland Electric Power Company with its Predecessor and Subsidiary Companies (Portland, 1935; mimeographed), p. 154.
- 27 Pacific Telephone and Telegraph, Survey.
- 28 Pacific Telephone and Telegraph, Survey.
- 29 Pacific Telephone and Telegraph, Survey; see also promotional flyers for East Moreland, Oregon Historical Society.
- 30 See City of Portland, Department of Public Works, map series c. 1921 covering pavement, water, gas lines, etc.
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- 32 Roblee, p. 153; Rowsome, pp. 168-169; Mills, Railroads, p. 92.
- 33 Maddux, p. 109.
- 34 Source for all PRL&P lines: Mills, "Early Electric Inter-urbans...I....," 82-105.

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Other information was acquired through and from Rose City Transit Company, from countless maps and city directories, from miles of bus riding, from more miles of walking and looking.

Glossary

headway: the time interval between two cars traveling in the same direction on the same line

peak and off-peak hours, rush hours: peak or rush hours are those of the heaviest home-to-work and work-to-home travel; off-peak hours encompass the remainder of the day

shuttle: a shuttle car operates over a short distance generally to connect with a main line (or to connect two main lines) and to provide service to an area not sufficiently developed to warrant through service

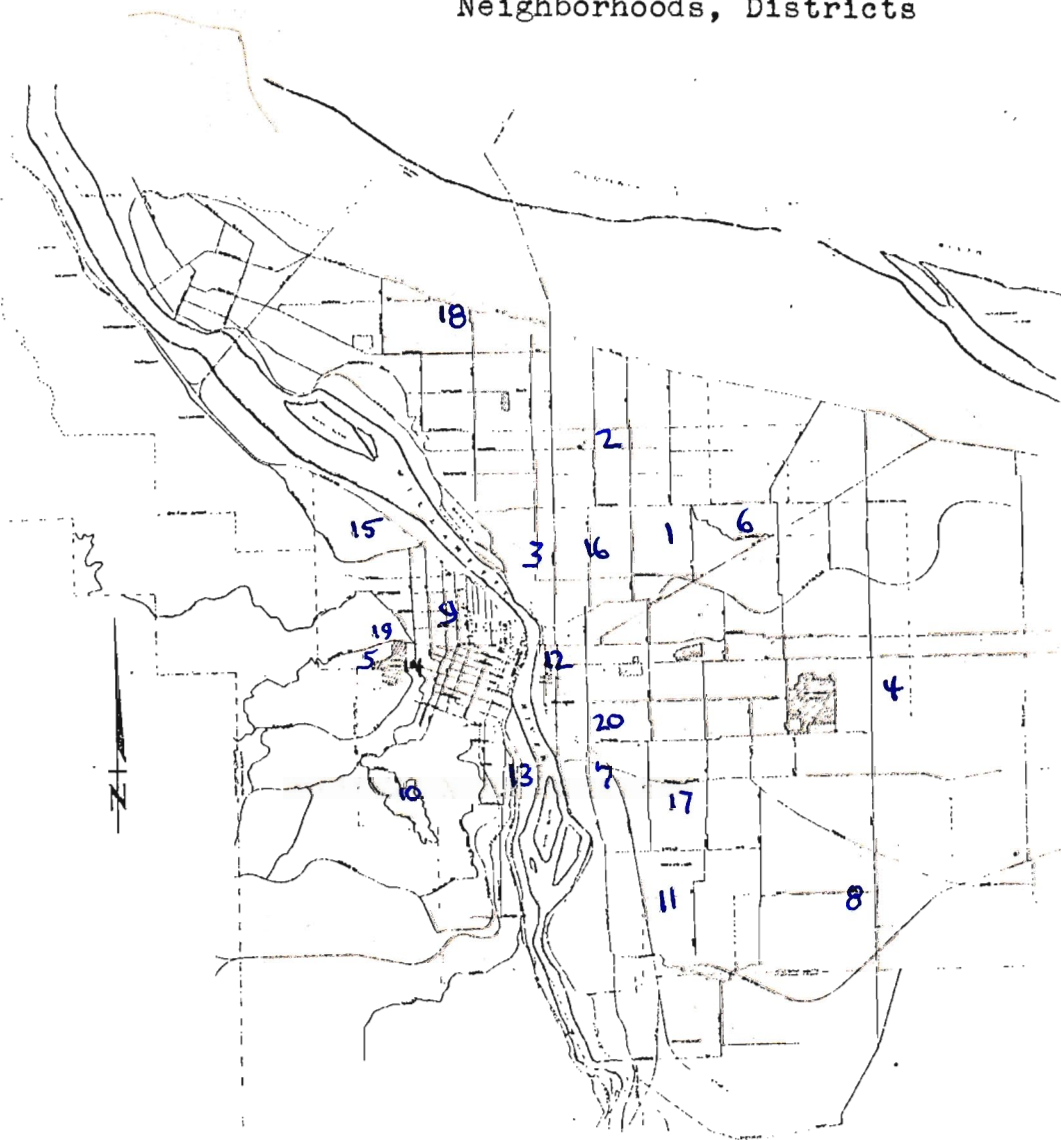
steam dummy, steam motor, or motor: a small steam locomotive designed to haul light suburban trains; those termed steam dummies have been disguised to avoid frightening horses

stub line: service on a stub line is much like that provided by a shuttle car, but there is an implication of even lower traffic density

tripper: a tripper car performs local service on the inner and more heavily-traveled sections of a main line, permitting limited-stop operations by those cars going beyond the terminus of the tripper run

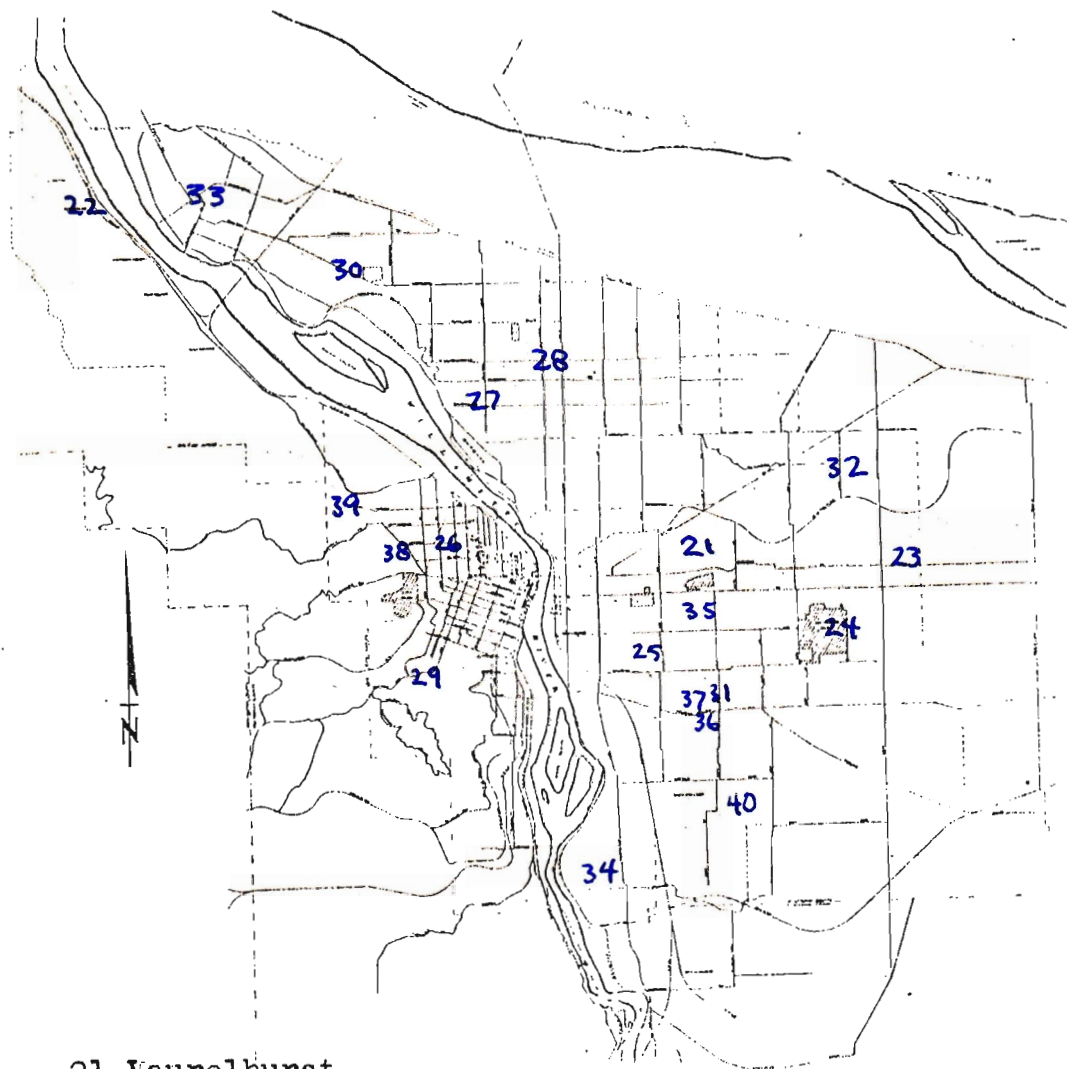


A Guide to Place Names, Towns, Additions,  
Neighborhoods, Districts



- |                     |                    |
|---------------------|--------------------|
| 1 Alameda Park      | 12 East Portland   |
| 2 Alberta           | 13 Fulton          |
| 3 Albina            | 14 Goose Hollow    |
| 4 Altamead          | 15 Guild's Lake    |
| 5 Arlington Heights | 16 Irvington       |
| 6 Beaumont          | 17 Kenilworth      |
| 7 Brooklyn          | 18 Kenton          |
| 8 Chicago           | 19 Kings Heights   |
| 9 Couch's Addition  | 20 Ladd's Addition |
| 10 Council Crest    |                    |
| 11 East Moreland    |                    |

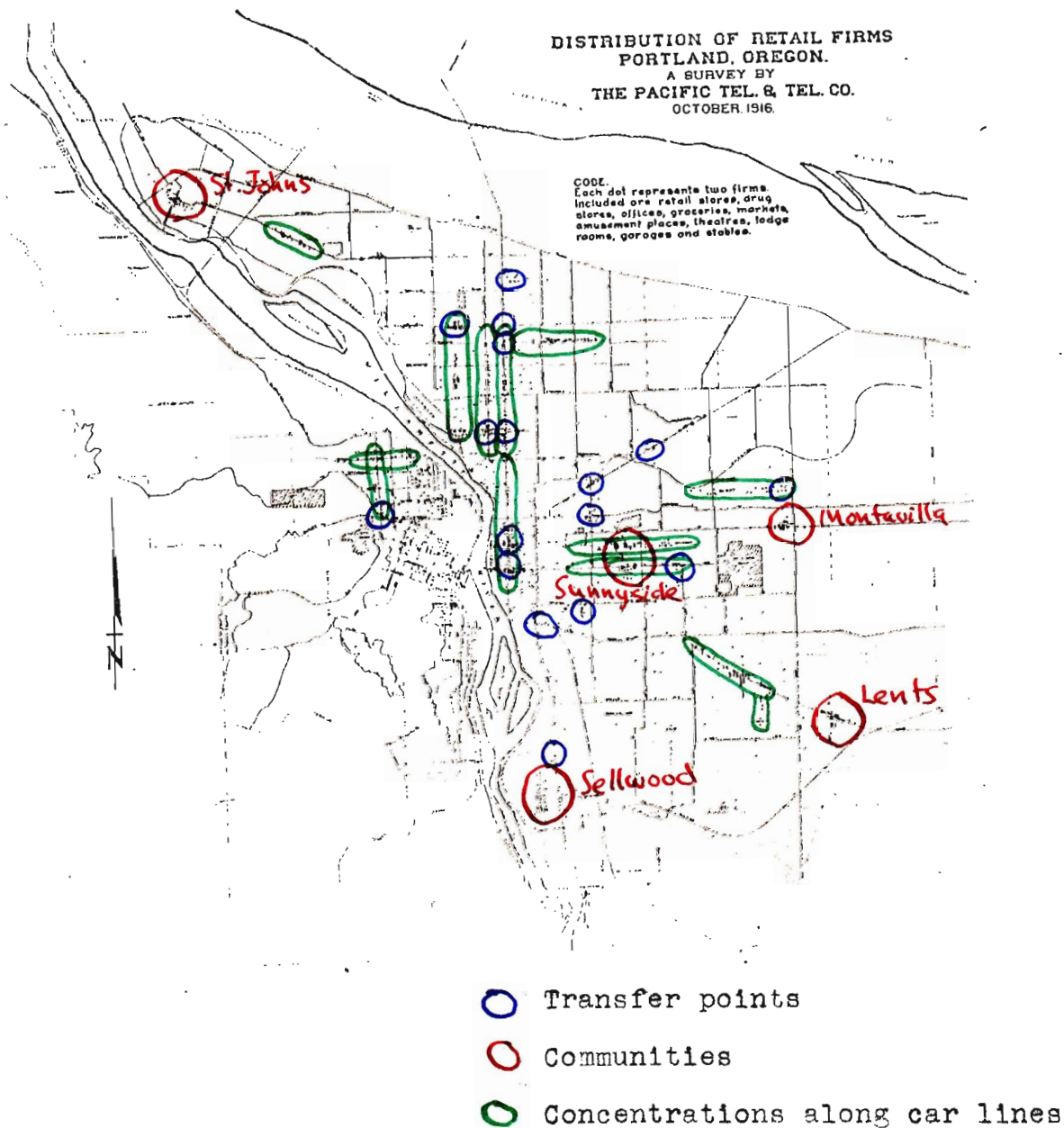
## A Guide to Place Names: Continued



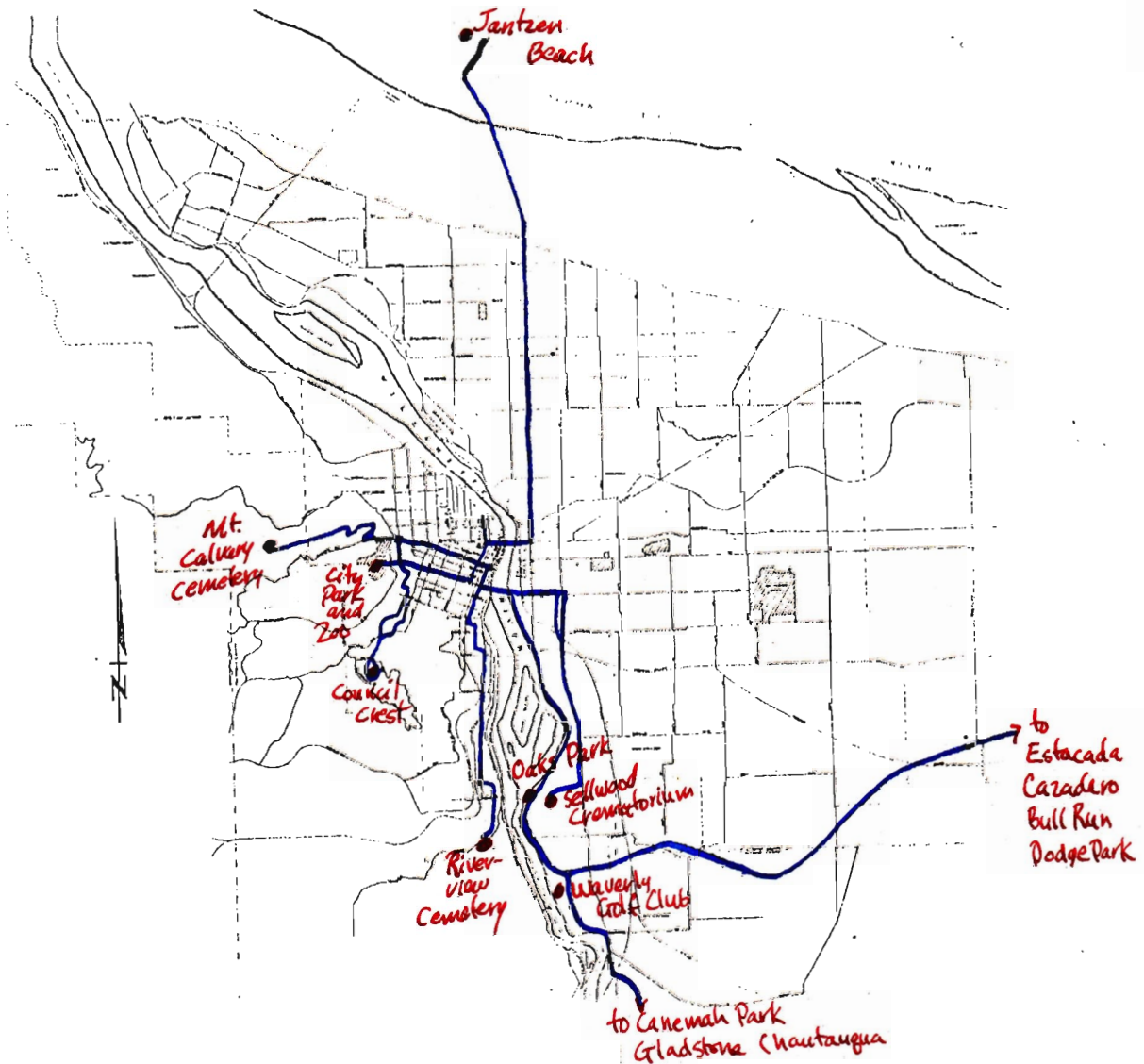
- 21 Laurelhurst
- 22 Linnton
- 23 Montavilla
- 24 Mt. Tabor
- 25 Murraymead
- 26 Nob Hill
- 27 Overlook
- 28 Piedmont
- 29 Portland Heights
- 30 Portsmouth
- 31 Richmond

- 32 Rose City Park
- 33 St. Johns
- 34 Sellwood
- 35 Sunnyside
- 36 Waverleigh Heights
- 37 Waverly
- 38 Westover Terrace
- 39 Willamette Heights
- 40 Woodstock

## Local Retail Centers



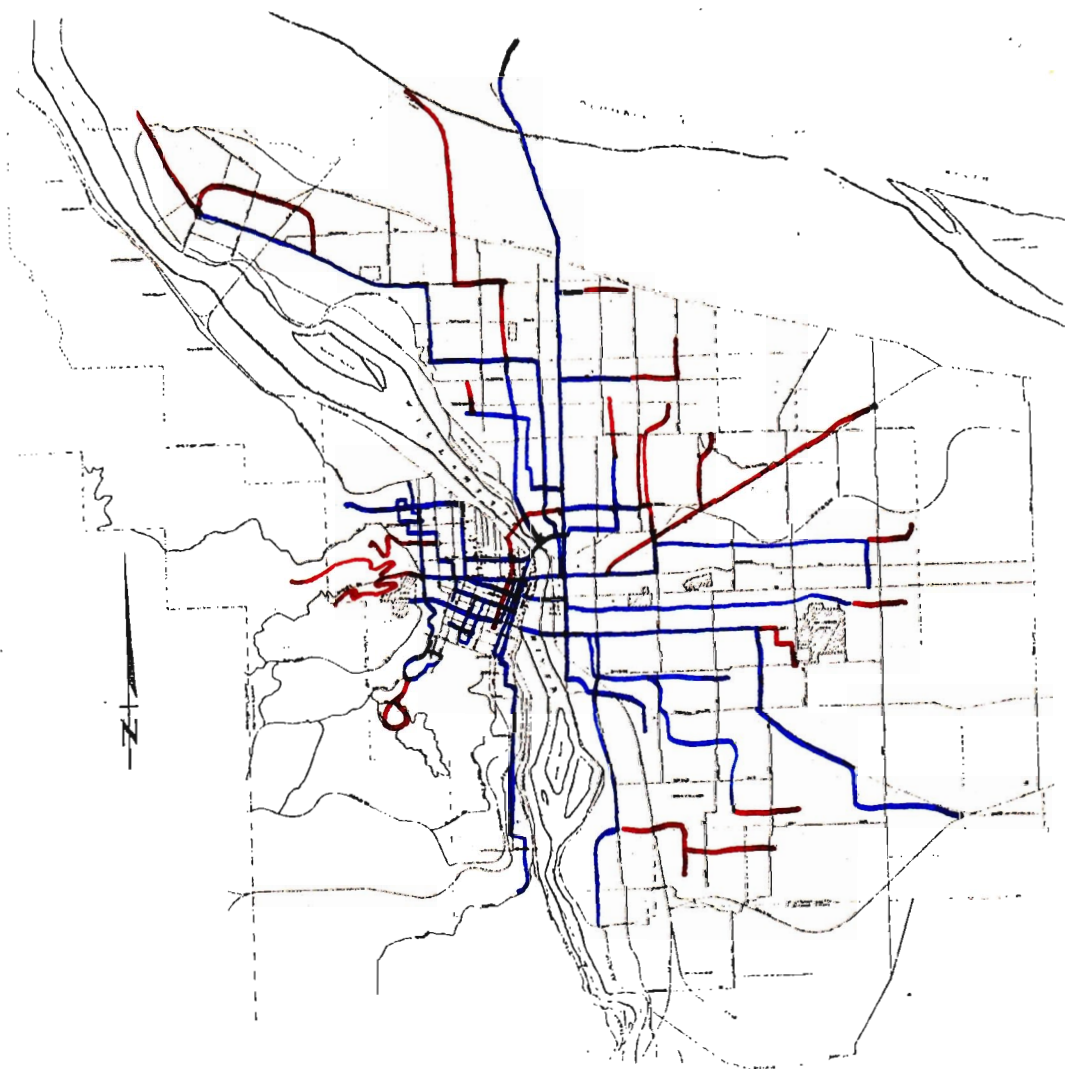
## Amusement Parks and Other Diversions



— Lines from city center to assorted amusement parks, cemeteries, and other locations of leisure-time activities



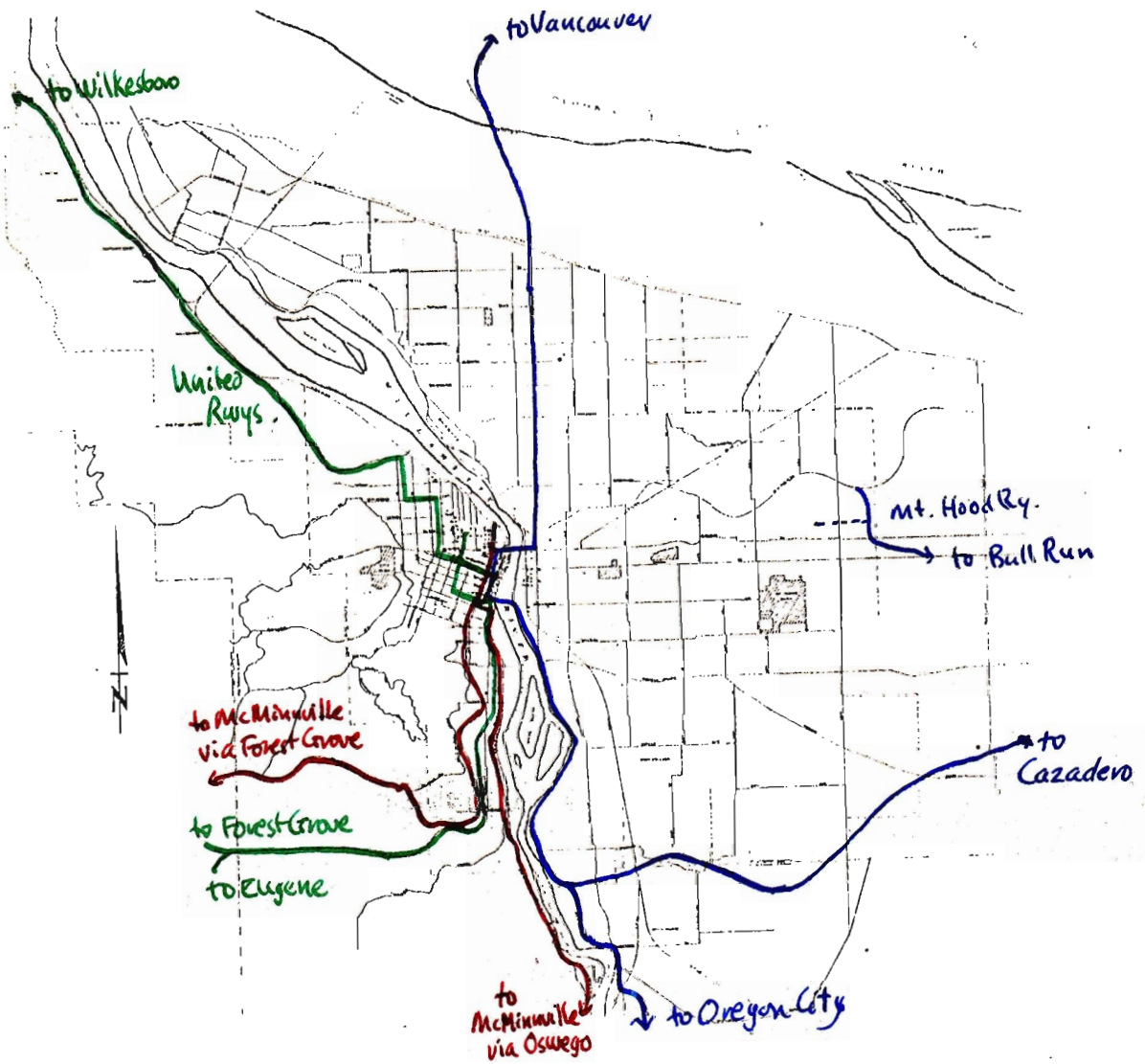
## Portland City Lines, 1920



— Lines built before 1907

— Lines built 1907-1920

## The Interurban Railways



- Portland Railway, Light and Power Company
- Southern Pacific Company
- Oregon Electric Railway, United Railways